# CHEMISTAND DRUGGIST

For Retailer, Wholesaler and Manufacturer

**JANUARY 16 1954** 







#### TO CUSTOMERS OLD AND NEW . . .

We are pleased to announce that the rebuilding of our offices and warehouse, destroyed by enemy action in 1940, is now completed. We take this opportunity of thanking all our customers for their support during a time of difficulty, and we look forward to providing them with an improved service now made possible by our new premises.

#### OUR CUSTOMERS WILL FIND HERE A COMPREHENSIVE STOCK OF

DRUGS · ETHICALS · PHARMACEUTICALS CHEMISTS' SUNDRIES AND PACKED SPECIALITIES

> It will be our constant aim to give prompt attention, efficient service and speedy delivery to all orders.

#### SOUTHALL BROS. & BARCLAY LIMITED

PRIORY HOUSE . GOOCH STREET . BIRMINGHAM 5

Telephone: MIDLAND 7111 · Telegrams: LOFOTOL, BIRMINGHAM

#### SPECIAL ANNOUNCEME

## **HUXLEY BRAND PREPARATIONS**

WE wish to advise our many friends throughout the country that we have acquired, from The Anglo American Pharmaceutical Co. of Croydon, all manufacturing and distributing rights for HUXLEY BRAND PREPARATIONS, orders for which should be sent to your usual wholesaler.

Retail prices, including Purchase Tax, are as follows:

WINTOGENO 2 oz 2/9  TUBULETTE 1 oz 1/8  TUBULETTE 2 oz 2/9  NER-VIGOR  Plain or with	COLCHI-SAL CAPSULES 50's 5/3  COLCHI-SAL CAPSULES 100's 8/9  WITCH HAZEL JELLY 2 oz 2/6  SAL-ANTISEPTICUS 2 oz. 2/3  SAL-ANTISEPTICUS 4 oz. 3/2  SAL-ANTISEPTICUS 8 oz. 4/-  SAL-ANTISEPTICUS 16 oz. 5/6  UAL TRADE TERMS
This announcement has been delayed stocks, which are  GALE, BAISS &  274/276, ILDERTON ROAD, LON Telegrams: DREADNOUGHT, PECK, LONDON.	c now available.  COMPANY LTD.

## CODIS

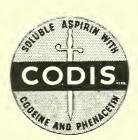
A marked improvement upon TAB. CODEIN. CO. B.P.

Aspirin, phenacetin, codeine phosphate; there is no more familiar group of analgesic drugs. 'Codis' improves upon it. In Codis the 'aspirin' is soluble, as in 'Solprin,' and rapidly forms a solution of palatable calcium aspirin.

CARO

A Codis tablet placed uncrushed in water provides, in a few seconds, a solution of calcium aspirin and codeine phosphate, with phenacetin in fine suspension.

The advantages of analgesic therapy with Codis are, rapid disintegration of the tablet in water with resulting greater ease of administration, and far less likelihood of intolerance by the patient. The chance of gastric irritation is minimised because there are no undissolved particles of aspirin.



#### COMPOSITION

Each Codis tablet weighs 11.45 grs. and contains:— Acid. Acetylsalicyl. B.P. 4 grs., Phenacet. B.P. 4 grs., Codein. Phosph. B.P. 0.125 grs., Calc. Carb. B.P. 1.2 grs., Acid. Cit. B.P. (Exsic.) 0.4 grs.

Codis is not advertised to the public.

DISPENSING PACK (Purchase Tax Free), 300 tablets in distinctive gold foils of 6 tablets each, 16/6 per box.

OTHER SIZES—Packs of 20 tablets, 2/7 each inc. P.T. (in bottles or foil).



## A Tremendously Powerful Campaign

Sto	andard Bonus Parc	els		
PARCEL	39 × 25 Capsules @ 2/6 I	Retai	1	
	Total retail value	£4	17	6
E	Cost of parcel	£3	0	9
PARCEL	26×5 ml. Drops @ 2/-	Reta	il	
	Total retail value	£2	12	
F	Cost of parcel	£I	12	5*
PARCEL	13×15 ml. Drops @ 5/-			
	Total retail value	£3	5	0
G	Cost of parcel	£2	0	6
PARCEL	13×30 ml: Drops @ 9/-	- Ret	ail	
	Total retail value	£5	17	0
ı	Cost of parcel	£3	12	Н
PARCEL	26 × 25 Capsules @ 2/6 I	Retai	1	
	13×100 " @ 8/6 !	Retai	1	
	Total retail value	£8	15	
К	Cost of parcel	£5	9	4
PARCEL	13×100 Capsules @ 8/6	Reta	ail	
	Total retail value		10	
L	Cost of parcel	£3	8	10
PARCEL	13×15 ml.			
	Infants' Emulsion @ 3/	6 Re	tail	ı
P	Total retail value	£2	5	6
	Cost of parcel	£I	8	41

Order Now

The vast coverage of the press, National Dailies, Weeklies, Monthlies, Sports Journals, Mothercraft, Educational, etc. etc., is now reinforced twice weekly with programmes from Radio Luxembourg together with Colour Filmlets in 1,000 cinemas covering the whole country.

GENEROUS BONUS TERMS are available (including a new parcel K, 24 x 25 and 12 x 100 Capsules).

FULL RANGE OF SHOWCARDS.

DRESSED WINDOW DISPLAYS.

CROOKES

HALIBUT OII

THE CROOKES LABORATORIES LIMITED . PARK ROYAL . LONDON N.W.10

## Final Modess Contest Won by Cheshire Chemist

First place in the Modess December Sales Contest goes to

E. C. RIDER, M.P.S., 'Deva Pharmacy,' Telegraph Road, Heswall, Cheshire,

who wins the

#### 3 MONTHS' STOCK OF MODESS TOWELS FREE!

The sales assistants share a cheque for £100

Special Consolation Prizes go to runners up in

## BELFAST, CARDIFF, EWELL, HAYES, LIVERPOOL, LONDON, SLOUGH, SOUTHEND-on-SEA, TREHARRIS

Here is the list of shops in the above towns where outstanding results by counter assistants are being rewarded by special personal consolation prizes:—

Stranmillis Hosiery Store, 127a Stranmillis Road, Belfast. E. G. Howell, Chemist Ltd., 130 Queen Street, Cardiff. Mme. Aida, 3 Stoneleigh Park Road, Ewell. The Lansbury Pharmacy Limited, 102 Lansbury Drive, Hayes, Middx. Cotters, 227 Lowerhouse Lane, West Derby, Liverpool. W. G. Fowler, M.P.S., 19 Stonebridge Lane, Gillmoss, Liverpool. W. W. Brunton & Co., 240 Earls Court Road, London, S.W.5. J. A. Simons, 4-10 Windsor Road, Slough. Essex Pharmacy (1945) Ltd., 14 Victoria Circus, Southend-on-Sea. C.W.S. Retail Co-operative Society Limited, Taff Bargoed Branch, Treharris, Gl1m.

#### THANK YOU FOR TAKING PART IN THESE 4 MODESS CONTESTS

The December Modess Contest is the last in this series. We hope you have enjoyed them as much as we have. The response has been terrific and judging by reports received from our friends in the trade, sales of Modess really bounded up as a result.

#### THANKS AGAIN FOR ENTERING.

Johnson Johnson (Gt. Britain) Limited, Personal Products Division, 6, Buckingham Street, London, W.C.2.

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Whatever else you forget, don't let GLAXO STANDARD PARCELS slip your mind. They offer much of value to the astute pharmacist—a generous discount, convenience of ordering and with many parcels attractive. colourful display material.

Typical selection from the Glaxo 'parcel' range.

PRODUCT	PARCEL No.	CONTENTS	PRICE	PARCEL SELLS AT
GLUCODIN Trade mark	11	2 doz. x 16-oz.	£2. 4. 0.	£3. 6. 0.
MINADEX Trade mark	l l	2 doz. x 6-oz.	£2. 0. 0. plus P.T 11/3	£3. 11. 0.
ADEXOCAL Trade mark	* 3	I doz. x 50's	£1. 6. 8.	£2. 0. 0.
CASILAN Trade mark	2	I doz. x 8-oz.	£1. 16. 0.	£2. 8. 0.

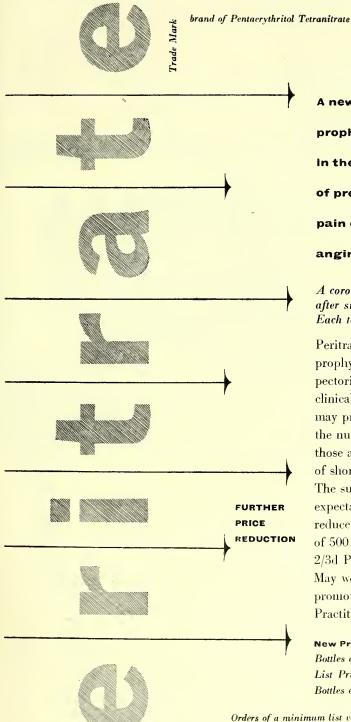
\* Packed with display material

Please order parcels direct from Greenford, quoting your wholesaler's name for invoicing purposes.

GLAXO LABORATORIES LTD., GREENFORD, MIDDLESEX BYRON 3434

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A new oral

prophylactic tablet

In the treatment

of pre-cordial

pain of

angina pectoris.

A coronary vasodilator, active 30 minutes after swallowing and effective for 4-5 hours. Each tablet is of 10 mg. strength.

Peritrate is a drug of considerable benefit in the prophylactic treatment of patients with angina pectoris, regardless of their age. The evidence of clinical trials indicates that in some cases Peritrate may protect completely against attacks; in others, the number of attacks is substantially reduced; those attacks not prevented may be less intense and of shorter duration.

The success of Peritrate has far exceeded even our expectations. Because of this, we are now able to reduce its price still further. The dispensing pack of 500 tablets will now be supplied at 9/- plus 2/3d Purchase Tax.

May we remind you that our propaganda and promotional efforts to Consultants and General Practitioners will be maintained during 1954.

#### **New Prices:**

Bottles of 50 tablets, each (incl. P.T.) 4/6 List Price, per dozen 31/- plus P.T. 7/9 Bottles of 500 tablets. List price each 9/- plus P.T. 2/3

Orders of a minimum list value of £5. exclusive of tax, are subject to a 5% discount

L C O T T Laboratories 170

Sole Distributors:

William R. Warner & Co. Ltd. Power Road, London, W.4.



for reliable quality

Specialists in the manufacture and packaging of Pharmaceutical and allied products which can be recommended with the greatest confidence to your customers.

## TABLETS

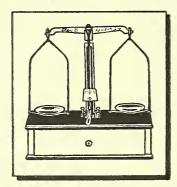
PILLS · PASTILLES CREAMS · OINTMENTS SOLVELLÆ · SUPPOSITORIES CAPSULES

CONTRACTORS TO H.M. GOVERNMENT

ARTHUR H. COX & CO. LTD. BRIGHTON, SUSSEX

#### The OLD and the NEW

IF YOUR DISPENSING BALANCE IS GETTING OLD



A strongly constructed balance. Light alloy beam. Aluminium indicator. Sensitivity: 0.1 grains. Pans and stirrups of brass. Polished mahogany box.

. . . not so good as it used to be

. . . not so reliable

. . . not so efficient

— and you want a good reliable balance at a reasonable price, then choose the

No. 50 BALANCE PRICE £7 - 7 - 0

Also, the White Monarch de luxe balance £11-11-0

SHORTHEAD



SPEARHEAD

Everything is laid on to make 1954 a Bumper Year for you.

- MATIONAL ADVERTISING
- **£** SPARKLON —

the new nylon 1/8

- **≰** BRISTLE 2/3
- GRADE GUARANTEED TUFTS

means

#### **ALMOST 100% PROFIT**

on every Spa toothbrush you order between now and 31st March

#### BIG PROFITS FROM SMALL PARCELS

Big sales to the public are assured because the offer coincides with the launching of a new idea in toothbrushes.

#### GRADE GUARANTEED TUFTS

Every SPA Toothbrush—Hard, Medium or Extra Hard—is now guaranteed to be of the texture marked. This outstanding advantage applies to both Bristle and **SPARKLON**\*

And now for the Bonus Offer details

What you get	What it costs you	What it sells for
2 doz. Spa Sparklon Shorthead Toothbrushes No. 4	150	200
2 doz. Spa Sparklon Spearhead Toothbrushes No. 5	12 6*	2 0 0
I doz. Spa Bristle Shorthead Toothbrushes No. 4	17 6	170
1 doz. Spa Bristle Spearhead Toothbrushes No. 5	17 6	<u> </u>
Because I doz, are supplied FREE	£ 3 12 6	£ 6 14 0

£3.1.6 profit on £3.12.6. invested — nearly 100% on cost

Be sure to order enough parcels so that you don't miss a single penny of all the extra profit that can come your way. For the same reason, order right away—NOW!

★ SPARKLON the new and immensely improved extra flexible nylon. It is kind to the teeth and does not break or splay.

SPA BRUSHES LTD. · CHESHAM · BUCKS.

# 

BIGGER NATIONAL

Full scale national advertising for Andrex is making its mark everywhere. Look at this list of Britain's favourite, mass circulation journals that carry Andrex advertising regularly, frequently and forcefully into the homes of millions.

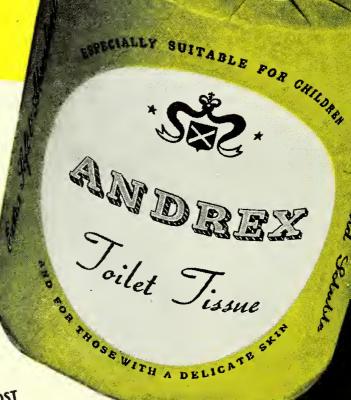
RADIO TIMES . PICTURE POST

ILLUSTRATED · EVERYBODYS · WOMAN

WOMANS OWN . GOOD HOUSEKEEPING

WOMANS JOURNAL . WOMAN & HOME

CHILDHOOD



BETTER PROFIT MARGINS

A bigger profit—nearly 4d on every roll—and a quicker turn-over on an established. nationally advertised product.

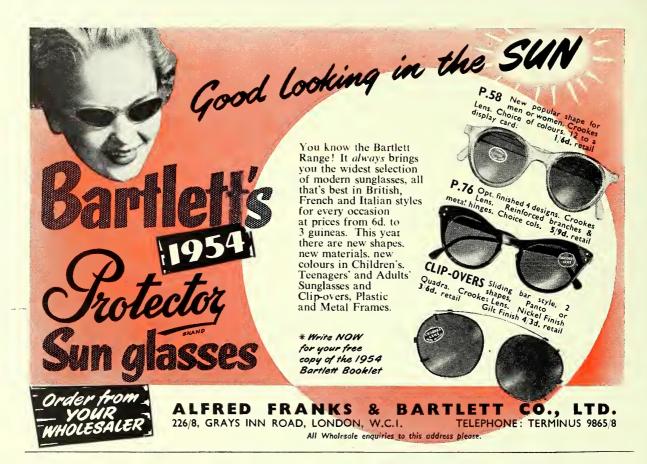
That's why Andrex holds the lead as the top popularity, top selling really soft tissue. SPECIALLY SUITABLE FOR CHILDREN

Toilet Tissue

THOSE WITH A DELICATE STIP

Trade II/I dozen. DOUBLE PACK 2/5 each. Trade 21/2 dozen. SINGLE PACK 1/3 each.

Ah! ANDREX! -and what a difference





THE HARMLESS AND POWERFUL
ANTIOXIDANT
FOR FATS AND OILS

Our Service Dept. will gladly co-operate with you on all technical problems.

Sole Distributors for the United Kingdom

P. Samuelson & Co., Roman Wall House, I Crutched Friars, London, E.C.3

Telephone: ROYal 2117/8

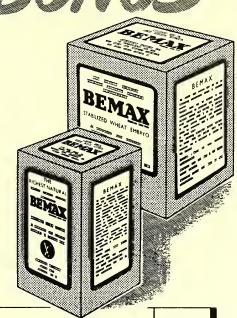
NIPA LABORATORIES LTD TREFOREST TRADING ESTATE Nr. CARDIFF TEL: TAFFS WELL 128 & 150

## First big opportunity of 1954! ANOTHER

BIGBENIAL BONUS

#### Available January 11th to February 22nd

The great success of our Bonus Offer last autumn, followed by the ever-mounting success of the increased Bemax advertising in Radio Times and the Provincial Press, enables us to make this further Bonus Offer—the first in 1954! Get your order in early. Make sure of your Bonus Now!



		STANDARD			_	
	PARCELS	LIST	QUANTITY TERMS		BONUS TERMS	PROFIT
BX.I	6 dozen × 1/9 size	99/-	96/-	* SPECIAL	88/-	38/-
BX.2	3 dozen x 3/- size	85/6	81/9	BONUS	75/-	33/-
BX.3	$l^{\frac{1}{2}}$ dozen x 5/6 size	78/9	75/-	DISCOUNT	68/9	30/3
BX.4	2 dozen x 3/- size ½ dozen x 5/6 size	83/3	79/6	equivalent to  13 to the dozen	72/11	32/1
BX.5	I dozen $\times$ I/9 size $\frac{1}{2} \text{ dozen } \times$ 3/- size $\frac{1}{2} \text{ dozen } \times$ 5/6 size	85/6	81/11	DEDUCTED FROM INVOICE	75/-	33/-

<sup>★</sup> The above Bonus discount is additional to the existing trade discount as well as the discount allowed on quantity orders.

#### BEMAX

has enjoyed the confidence of the Medical Profession for over 26 YEARS

If you have not yet received details of the Bonus Offer write at once for full particulars to

VITAMINS LTD., 23 UPPER MALL, LONDON, W.6

#### To remind you what to do.

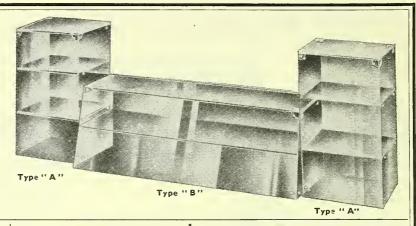
Send in the order form between January 11th and February 22nd. Use the display material sent with goods for your Window and Counter for at least 14 days during the Bonus period.

But remember, too,

if always pays to display BEMAX

## COMPARE OUR PRICES!

The Lowest Priced GLASS SHOWCASES on the Market —



	T	YPE	"A"	
	-Inches			
High	Long	Deep	Shelves	Price
21	12	10	1	54/6
21	24	10	ı	63/-
24	16	12	2	70/-
24	18	12	2	72/9
30	14	10	2	71/6
28	24	12	2	87/6
36	24	18	2	115/-

VITROLITE BASES, SLIDING DOORS, EXTRA

	T,	YPE	"B"	
	-Inches			
High	Long	Deep	Shelves	Price
7	24	10		42/6
7	36	10	_	46/6
14	24	10	- 1	54/6
10	30	12		47/6
10	42	12	_	55/-
14	36	10	1 .	63/9
16	30	9	1	60/-
20	24	12	- 1	64/-
14	48	12	1	78/-
21	48	12	2	106/6
30	36	14	2	115/-
			_	/

#### DIRECT TO YOU FROM THE MAKERS

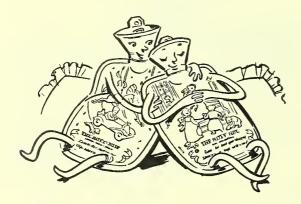
Free Insurance against breakage for 12 months. ... Free Delivery anywhere in Great Britain.

SEND FOR ILLUSTRATED BROCHURE

H.F.D. (Metal & Glass) LTD.

195 CLARENDON ROAD,
LONDON, W.II.

Telephones: PARk 8970 & 8694



Warm and happy! A moulded hot water bottle that brings perfect comfort. Equally popular with mother and baby. Engraved with three lovely exclusive designs and made in Pink and blue.

#### NITEY-NITE REGI

CHILDREN'S HOT WATER BOTTLE

Also full size bottles with new surface engravings

Write for the name of your nearest wholesaler to:—
HYTEX LIMITED, 304 LATIMER ROAD, LONDON, W.10
Ladbroke 1445

A GOOD NAME



TO QUOTE

Matthews & Wilson are recognised as one of the best firms to quote for

PILLS • TABLETS • CAPSULES
LOZENGES • SUPPOSITORIES

MATTHEWS & WILSON LTD.

6-8, COLE ST., LONDON, S.E.1

Telephone, HOP 2147-8



HEAD OFFICE & WORKS: MANSFIELD ROAD, DERBY. Tel: 48266 (4 lines) BRANCH WAREHOUSE: GROSVENOR ST., ASHTON under LYNE. Tel: 2816 (3 lines)

#### . . . new display sleeve

.. extensive national advertising



This season more than 20 million readers of Britain's largest national and provincial newspapers and popular magazines will be seeing KILKOF advertising. In its new eye-catching display sleeve, KILKOF is certain to be a bigger-than-ever "counter" attraction. And for KILKOF KONES—pleasant tasting throat pastilles—a campaign to sell from the display box on your counter. Attractive display cards and transfers are also available to help you in your selling. Stock up now to meet the assured demand!

The cough mixture that sells when displayed and repeats sales on its quality



MADE BY PARKINSONS LTD. MANUFACTURING CHEMISTS, BURNLEY

## Another 1 best-seller.

GREAT NEWS! Here's yet another sure-fire selling certainty from Maw's — obtainable as always "from chemists only" — the Dinky Feeder Whether a baby is naturally fed or not, the unique Dinky Feeder is a boon from birth right through babyhood.

The Dinky Feeder is the ideal way of giving orange-juice, medicine or a soothing drink. A unique miniature feeder and pacifier—all in one!



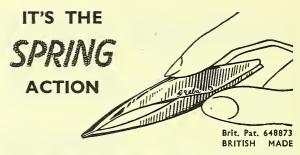
Retail price, in carton complete with cleaning brush,

One dozen, in attractive display outer,

1/9

14'-

S Maw Son and Sons Limited Barnet England



THAT SELLS THE



IT HOLDS THE MINUTEST ARTICLE
WITH AN UNFAILING GRIP

Women everywhere are welcoming this new improved patented Stainless Steel Tweezer because it really does grip without effort or tension.

Order from your Wholesaler.

TRADE PRICE 18/- doz. (Plus P.T.)
Wholesale and Export Enquiries to:--

ARCFIELD OPTICAL MANUFACTURING CO., LTD.
(Light Engineering Section)

53 TOTTENHAM COURT ROAD, LONDON, W.1



## **AMISYN TABLETS**

combining

ACETOMENAPHTHONE

and

**NICOTINAMIDE** 

for

THE TREATMENT OF CHILBLAINS

EXEMPT FROM
PURCHASE TAX

THE ARMOUR LABORATORIES

LINDSEY STREET, LONDON, E.C.I

Telephone: Clerkenwell 9011
Telegrams: "Armosata-Phone," London

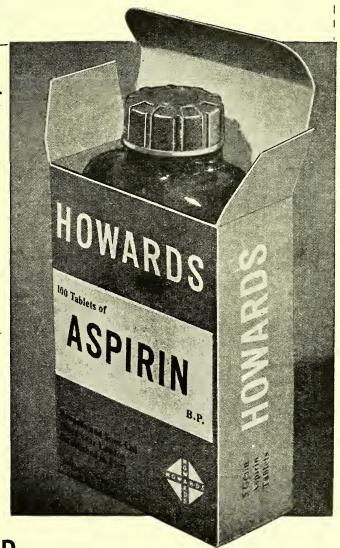
# New P.A.T.A. prices for HOWARDS ASPIRIN

EFFECTIVE JAN. 15th 1954

•					
Price to Retailer excl. P.T.		Р.Т.	Price to Public incl. P.T.		
<b>25</b> 's	7[- doz	1/9 doz	I/I each		
25's £10 lot	6/6 doz	I/9 doz	I/I each		
100's	19/- doz	4/9 doz	3/- each		
100's £10 lot	18/- doz	4/9 doz	3/- each		

#### Window Display Bonus Terms

Retailers who guarantee a window display, a counter display or shop display (that is a prominent position in a show case), and order not less than 2 gross 25's (or equivalent), receive a free bonus of 3 dozen 25's. For 1 gross 25's the bonus is 1 dozen 25's. This bonus represents a very substantial increase in profits. Orders should be placed through your usual wholesaler. Should you wish to have new display material write to Howards who will be glad to post this direct.



HOWARDS OF ILFORD

ILFORD · ESSEX · EST. 1797

#### **BONUS OFFER Vulfix Shaving Brushes** >> ONE FREE BRUSH! Retail Value 3/6

During the strictly limited period of February and March, 1954, we are offering the following Bonus Parcel:-

4 PCS. VS/I RETAILING AT 3/6 EACH

,, VS/2

VS/3

### AND ONE PIECE OF VS/I (Value 3/6)

COST OF PARCEL 42/- (PLUS 10/6 P.T.)

RETURNS £3 : 16 : 9

EACH BRUSH CARRIES A TWO YEARS' WRITTEN GUARANTEE Constantly advertised in NATIONAL NEWSPAPERS



THE PROGRESS SHAVING BRUSH CO. LTD

Progress Works, Mottram Street, Stockport, Eng. — 92 Regent Street, LONDON, W.I

9/6 AVING BRUSHES PURE BADGER AND PURE BRISTLE

'PERNIVIT'

'PERNIVIT' for chilblains

Every year, more and more chilblain sufferers discover Pernivit. Both for the treatment of chilblains and for their subsequent prevention, Pernivit has been remarkably successful.

Available in display cartons each containing six bottles.

## (PERNIVIT

Nicotinic Acid B.P. and Acetomenaphthone B.P. Bottles of 50 tablets TRADE 2/- RETAIL 3/-

THE BRITISH DRUG HOUSES LTD. LONDON

Prvt/T/7



Will you be able to meet the DEMAND FOR LUCOZADE?

ucozade replaces lost energy lose energy fighting 'flu-all illness is weakening, nd lost energy must be replaced.

Lucazade, the sparkling Glucose drink, replaces drink are duckly and safely. Lucosade does not upset the most delicate stamoch Involids love its refreshing, delightful Doctors ond Nurses use Lucosode, in Clinics, Hospitols, Nursing Hames ond Schoals. Lucozade the sparkling

'Flu strikes every winter and so do all sorts of other weakening illnesses. That's why every year, about this time, the demand for Lucozade increases tremendously. Will you be able to meet this increased demand or do your stocks only cover your present requirements?

> Advertisements like this one will tell everybody in the country how good Lucozade is for common winter ailments and how necessary it is during the convalescing period.

ORDER MORE LUCOZADE NOW!

DONT LET YOUR CUSTOMERS DOWN KEEP YOUR LUCOZADE STOCKS UP! REAT WEST ROAD BETT

LUCOZADE LTD., GREAT WEST ROAD, BRENTFORD, MIDDX.



CONSISTENT advertising, backing a product approved by the Medical and Nursing professions, and needed by Mothers everywhere, has made FEEDRITE a top seller wherever feeding bottles and teats are sold.

Write today for attractive show material and Explonatory Leaflets.

Prices are as follows:

Complete FEEDRITE BABY
FEEDER OUTFIT
FEEDRITE SPARE BOTTLES
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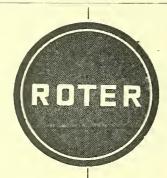
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Official organ of the Pharmaceutical Society of Ireland and the Pharmaceutical Society of Northern Ireland

Volume 161

January 16, 1954

No. 3856

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Volume 161

JANUARY 16, 1954

No. 3856

#### Electricity as Weed-killer

#### EXPERIMENTS IN PROGRESS

EXPERIMENTS in destroying weeds by electric shocks are being made by the British Electrical Research Association and by Mr. F. Coleman (a lecturer of the Royal Agricultural Society).

At a meeting of the Institution of British Agricultural Engineers in London on January 12, Mr. Coleman said that comparatively small electric currents flowing through a plant from an electrode to earth can kill a variety of weed species. A suitable and safe technique was to discharge a condenser of some  $10\mu$  farads, charged to 400-500 volts, through the plant. The lethal current seemed to be of the order of 10 milliamps. It was too early to estimate how useful the technique might become. It appeared that the complete absence of damage to plants not touched by the electrode, together with the ease of control associated with electrical circuits, might make the technique particularly valuable in weeding and thinning row crops. The apparatus is carried knapsack style.

#### AMENDMENTS TO CODEX A monograph on Dichloroxylenol

THE Council of the Pharmaceutical Society has authorised the pub.ication of an amendment to insert at p. 1296 of the British Pharmaceutical Codex, 1949, a monograph on dichloroxylenol (C<sub>8</sub>H<sub>5</sub>O Cl<sub>2</sub>), official synonym dichlorometaxylenol. The monograph gives a method of preparation, the solubility, identification tests, etc. Under "Action and Uses," it describes the compound as claimed to be more effective than chloroxylenol, particularly against Staphylococcus aureus. A second amendment deletes lines 16-20 on p. 1296, under syrupus cocillanæ compositus, and inserts:—

Dissolve the potassium antimonyl tartrate in the water, add the solution to the liquid extracts, previously mixed, and filter through diatomite; dissolve the codeine phosphate in the filtrate, add the glycerin, a solution of the menthol in the spirit of chloroform, and sufficient syrup to produce the required volume.

#### PROPRIETARIES Additions to classified lists

A LIST of alterations and additions to the lists of classified proprietaries prepared by the Joint Committee on Prescribing of the Ministry of Health (see C. & D., 1953. II, 73) has been prepared. Copies are being sent to chemist contractors in the near future.

#### THEFT OF MERCURY Police request for information

FIFTEEN iron bottles of mercury, all marked in black paint "MB, London, made in Italy," were stolen from a barge on the River Thames during the night of January 4-5. Each bottle bears one of the following numbers:—1054, 1073, 1095, 1103, 1116, 1117, 1124, 1125, 1169, 1196, 1213, 1220,

1235, 1294, 1305, 1329, 1332. Any information about the bottles should be communicated to Detective Inspector Nixon, Wapping Police Station, Wapping, London, E.1 (Telcphone: Royal 1116).

#### THE LATE MR, MALLINSON Memorial service arranged

THE Executive of the National Phurmaceutical Union has arranged a memorial service for the late Mr. G. A. Mallinson (C. & D., January 9, p. 29). It will be held at the Parish Church of St. George the Martyr, Queen Square, London, W.C.1, at 3 p.m. on January 27. The Executive has also agreed in principle to the provision of some form of permanent memorial to Mr. Mallinson. An announcement on the subject will be made later.

#### SECOND ANNUAL "TRIPARTITE" DINNER N.P.U. Executive as Hosts

THE second annual dinner arranged for the Council of the Pharmaceutical Society, the Executive Committee of the National Pharmaceutical Union, and the Council of the Chemists Federation, took place in London on January 6. This year the hosts were the N.P.U., whose chairman (Mr. H. Holmes) presided.

Holmes) presided.

The toast "This Profession of Pharmacy" was proposed by Mr. F. W. Adams (registrar of the Pharmaceutical Society), who said that what had brought the three bodies together was the realisation that the qualification in pharmacy should underlie the handling of drugs. Today's problem for all three bodies could only be realised if they understood the problem that existed when the Society was founded. Then the proprietor of a shop had to produce his own drugs. He made and sold galenical preparations without a brand name and was also an "un-ashamed counter prescriber." Confusion existed as to the rôle of dispensing in the pharmaceutical set-up. Historically the pharmacist was not a man who did dispensing but one who engaged in all the practical arts that underlay dispensing. Today's thinking must be adjusted to take account of machine production, investment and large-scale organisations directed by people who were not pharmacists (and might regard pharmacists as a necessary evil), and the fact that many medicines passed from wholesaler to retailer through the intervention of medical prescriptions. The idea of dispensing as an essential ingredient of pharmacy was becoming less and less real. Pharmacy was required at all the stages of manufacture and distribution, and an element of character was demanded by the public interest.

There were three responses to the toast. Mr. T. Heseltine (president of the Pharmaceutical Society) said that nothing but good could come out of such a function. Each organisation must learn the other's point of view. In the Society's field of education the Education Committee was still not satisfied, and had co-opted three examiners and three teachers.

MR. S. M. LENNOX (president, Chemists Federation) said that the versatility of pharmacy was particularly evident in the pharmaceutical industry, where pharmacists were to be found in direction, development and research; in the manufacture of chemicals; in medical and technical services; in analysis; and sometimes as salesmen.

MR. H. HOLMES (chairman, N.P.U.) made the final response. He made a plea for the inclusion of social meetings on all agendas. One purpose of the "tripartite" functions was to let all realise that they had one thing in common. Mr. Holmes disclosed that Mr. W. T. Elder, who had initiated the series, was retiring from the C.F. committee when his term of office ended.

At the commencement of the dinner all present had stood for a minute in silent tribute to the late Mr. G. A. Mallinson, O.B.E. (first secretary of the N.P.U.).

#### SAVINGS IN INDUSTRY

Move to widen group system WITH the support of the Board of Trade, the employers' organisations and the trade unions, a special savings drive is being conducted this winter in places of employment. In Britain today more than 62,000 savings groups, with a total membership of about 3,250,000, are in being in places of employment. In fact, more than twothirds of the money invested in national savings through all savings groups now comes from regular savers in industry, commerce and the public services. In the chemical industries group membership, at 55,000, is only 25 per cent. of the total of employees, though a number of big concerns in the pharmaceutical and fine chemical sections can show a considerably higher percentage. There remain many concerns where facilities for regular saving by employees have not yet been provided.

Outstanding achievements (in per-centages) with average savings per head of employees for the half-year ended September 30, 1953, in brackets, were: -- NEWTON CHAMBERS & CO., LTD.: 71.4 (£11 15s. 3d.); RECKITT & COLMAN, LTD.: 62-8 (£2 8s. 6d.); BURROUGHS WELLCOME & CO.: 60-9 (£5 5s. 9d.); FISONS, LTD.: 32-7 (£2 17s. 5d.); GLAXO LABORATORIES, LTD.: 32.5 (£8 0s. 6d.); THE BRITISH DRUG HOUSES, LTD.: 27.8 (£1 18s. 3d.); BOOTS PURE DRUG CO., LTD.: 26.6 (£2 15s. 6d.). For Aspro, Ltd.. the savings per head for the six months was £2 7s, 9d. A number of the company's employees are saving through more than one of the savings schemes in operation. The most popular method of group saving in large concerns is by voluntary deduction from pay, sometimes supplemented by a collection scheme. Many smaller firms prefer the scheme by which savings stamps are sold to members and later exchanged for savings certificates. Employees not covered by pension schemes or who wish to supplement their pensions or other incomes on retirement are invited to study a leaflet recently issued by the National Savings Committee, showing how the planned purchase of savings certificates, cashing a certain number at regular intervals, can provide a small but steady extra income when it is most needed. alternative scheme enables persons able to invest £525 in a full holding of certificates to ensure an annual taxfree income of more than £60 for ten years. Another leaflet explains the use of savings certificates to provide the sums for first deposit and initial expenses of house purchase. Both leaflets may be obtained free from district offices of the National Savings Committee or from local savings committees (addresses in telephone directories).

#### **BIOLOGICAL ASSAYS** Question at Society's meeting

AT the conclusion of Professor Miles's lecture (p. 68) at an evening meeting of the Pharmaceutical Society held in London recently, Dr. F. Hartley, London, asked how one could be satisfied that a standard preparation used in a biological assay was stable. Professor Miles said that there were two me

thods. 1: Have many batches of standard and at intervals test one against the others. If the samples deteriorated they would not do so proportionately, and a change in the relative potencies would indicate deterioration. 2: Perform accelerated degradation tests by subjecting the samples for a few months to less favourable conditions of storage than the usual ones. If no deterioration took place one could assume that the samples, when stored under optimum conditions, would be stable for long periods.

#### RESEARCH LIBRARY Opened by Lord Woolton

OPENING the new Wellcome Research Library at the Royal Society of Medicine's premises at Wimpole Street, London (see C. & D., 1953, II. 305) on December 4, 1953, Lord Woolton (Chancellor of the Duchy of Lancaster) said that the Government was much concerned that the findings and re-cords of scientific advances should be made as widely available as possible through the adequate services of technical libraries. The Lord President's office was considering various ways of meeting the present specialist library requirements. He believed that any vast project for a new national medical library was bound to be extravagantly, and, he thought, impossibly expensive. In that field collaboration was better than competition. Government would welcome an opportunity of discussing those common problems with the Royal Society of Medicine when the time was right.

#### LOCAL NEWS

#### **Estate Pharmacy to Let**

OUT of six lock-up shops on their Putney Vale housing estate, Wandsworth borough council will allocate one as a pharmacy. The 370 dwellings on the estate, which is situated off Roehampton Vale, London, S.W.15, will house 1,600 people. One house will be provided on the estate for the lessee of the pharmacy.

Prescription Suggestion Rejected BIRKENHEAD Medical Committee at a recent meeting decided that, in view of numerous administrative complications, no action should be taken on a suggestion of the Pharmaceutical Committee that prescription forms should be stamped with doctors' names and addresses.

#### Halifax Rota Service

AT a meeting held in Halifax on January 5 the local Executive Council approved a new rota service for 1954. It included revised hours of service submitted by the Pharmaceutical Service Committee to provide for services on weekdays, half-holidays and general holidays.

Prescriptions Prevent Absenteeism SPEAKING at a meeting of the Rochdale Rotary Club in Rochdale recently, Mr. W. Gabbott, M.P.S., Wigan, said that while Health Service prescriptions cost the State a lot of money the length of absences from work had been considerably reduced.

#### IRISH NEWS

Irish Drug Association
AT a meeting of the committee of the Irish Drug Association held in Dublin on January 5, Mr. T. R. Bourke (president) in the chair, it was decided to warn members to be on their guard against a small, slightly built, dark-haired woman (about thirty-five years old) who was endeavouring in the Dublin district to obtain barbiturates (chiefly Seconal capsules) on forged prescriptions. The woman is described as thin featured and fresh complexioned, height approximately 5 ft. 4 in., and as speaking with a middle-class Dublin accent. Various subterfuges were used and the prescriptions were usually for ten capsules.

Complaints to the committee that supplies of "chemists only" goods were being smuggled over the border were before the meeting. That was considered as possibly the source of some of the leakages which the committee were unable to trace. Customs officials were likely to be investigating purchases of razor blades and other dutiable goods. Members were advised to buy only from recognised distributors. The question of lay persons endeavouring to obtain supplies of medicines and many approved lines from approved wholesalers for personal requirements was again under review. Members were urged to furnish the secretary with full details of specific cases. A letter was read from a manufacturer who confined distribution to chemists and certain stores to the effect that the Army canteen board were seeking supplies. Members would be further advised of developments in the matter. Certain matters relating to the Restrictive Trade Practices Act and the inadequate profit margin on certain syphons and other lines were reviewed. It was decided to defer the publication of the drugs and chemicals list. The patent list would be available in February.

The following new members were elected: Mr. P. Cassidy, L.P.S.I., Glenties, co. Donegal; Mrs. M. M. Gleeson, L.P.S.I., Abbey Street, Wicklow; Messrs. P. D. Gormley, L.P.S.I., 81 Bridge Street, Dundalk; B. Hurson, L.P.S.I., 26 Main Street, Arklow, co. Wicklow; Miss S. Johnson, L.P.S.I., Ballymote, co. Sligo; Miss M. McMonagle, L.P.S.I., Knox Street, Ballina, co. Mayo; Messrs. F. A. O'Carroll, L.P.S.I., 106 Rock Street, Tralee; J. O'Sullivan, L.P.S.I., The Square, Bantry, co. Cork; and R. Smithwick & Co., High Street, Kilkenny.

#### Ulster Chemists' Association

AT the January meeting of the executive committee of the Ulster Chemists' Association, Mr. H. G. Campbell (president) in the chair, resolutions of sympathy were passed to the relatives of the late Mr. J. J. McClean, of Ballyclare, and to the family of the late Mr. G. A. Mallinson. Tribute was paid to Mr. Mallinson's work and his lifelong devotion to the cause of the retail pharmacist. His passing was recorded with deep regret. Mrs. C. Slevin, Ph.C., Tyrone Pharmacy, 60 Market Street, Omagh (successor to

Mr. H. A. Kyle) was elected to membership, and the following, whose applications had been approved at a previous meeting of the Associates' Section, were elected to associate-ship:—Ph.C., Mr. P. I. O'Reilly; Assistants, Misses A. McLean, N. Bogues, C. Gorman, M. J. Lenny and Mr. W. J. Gracey. Various price changes were approved and the secretary was instructed to ask certain manufacturers whether rebate on stocks was being allowed in the case of recent substantial price reductions. It was agreed to hold a joint meeting to discuss points raised by the Associates' Section in connection with the Shops Act and rota service, and to ask the Local Pharmaceutical Committee to revise the Belfast Rota Service, to include new pharmacies opened since the scheme was originally drawn up. It was agreed that the president, secretary, and Mr. J. Caldwell (representative on Chemists Federation Council) should represent the Association at the forthcoming C.F. luncheon and annual meeting of manufacturers in London.

Need for Pharmacists Emphasised

AT a recent meeting of the Dublin Corporation Councillor P. A. Brady, M.P.S.I., T.D., raised the question of the incident in which a proprietary disinfectant was handed out in mistake for cod-liver oil at a child welfare centre (see C. & D., January 2, p. 3). Councillor Brady (also a member of the Council of the Pharmaceutical Society of Ireland) moved a resolution requesting the city manager, in the interests of public safety, to take all necessary steps to ensure that only trained personnel were employed in such centres for the handling of medicines. The motion was seconded and referred to the Public Health Committee.

#### **NEWS IN BRIEF**

Sales of the 1953 Pharmacopæia.—Sales of the British Pharmacopæia, 1953, were, to April 30, 1953, 17,453 copies, April 30 to October 31, 1953, 7,905 copies.

Canadian Customs Import Entries.— Exporters to Canada should note that, from April 1, Canadian Customs Import Entries will be required to be presented in triplicate at ports and quadruplicate at outports (formerly duplicate and triplicate respectively).

Labour Policy on National Insurance.—In its recently published statement of policy the Labour Party announced that it is in favour of restoring benefits under the National Insurance scheme to the purchasing power which they commanded when the scheme was introduced, and of introducing equal pay for women.

The R.A.F. Reserves Club.—Applications for membership are invited from officers and ex-officers of the Reserve and Auxiliary Air Forces, former officers of the R.A.F., R.F.C., and R.N.A.S., and officers of the Dominion and Colonial Air Forces. Details from the Secretary, R.A.F. Reserves Club, 14 South Street, Park Lane, London, W.I.

#### TOPICAL REFLECTIONS

By Xrayser

#### The New Pharmacists

With the approval of the Privy Council, all chemists and druggists on the Register of Chemists and Druggists on December 31, 1953, were on the following day transformed into pharmaceutical chemists (p. 25). Little comment by me is needed. The designation "pharmaceutical chemist" for registered pharmacists was overdue. Before it was conferred, the following fragment of dialogue between a British pharmacist and a stranger might have been heard: "What branch of chemistry do you practise?" "The pharmaceutical." "Then you are a pharmaceutical chemist." A false conclusion, as Sir Toby Belch, in "Twelfth Night," remarked in another connection. The anomaly of P and Ph representing the same word remains. Can anything be done about it? As your readers know, Ph is a transliteration of a single Greek letter. The obvious drawback to its use by pharmacists is that it stands for "of philosophy" in academic titles. The former Ph.C.'s are now Fellows of the Society (F.P.S.).

#### Criticisms from Dundee

The Dundee and Eastern Scottish Branch of the Pharmaceutical Society is to be thanked for allotting an evening to the views of local pharmacy students (p. 34). The fact that some of the suggestions made were immature does not lessen the interest of reading what students are thinking. The desire of Mr. A. P. Jones for "compulsory postgraduate classes for the chemists and druggists who were being made pharmaceutical chemists" (a process now accomplished) is a case in point. Presumably the speaker would release from this obligation pharmacists who have definitely retired; but pharmacists in business would have to make arrangements for their places to be filled while they were attending classes, and this on a nation-wide scale would involve a formidable, not to say prohibitive, task of organisation. In the same speech it was claimed as one advantage of post-graduate apprenticeship that "the pharmacist could learn the more modern methods from the apprentice." how many tricks can an old dog be taught? Another student, Mr. D. W. Richardson, said that "in general, pharmacists showed little interest in students' education and affairs." If, in modern conditions of inspection of pharmacies, a proprietor finds it feasible to take an apprentice or engage a young assistant, it seems to follow that he will have to know how the youth's studies are progressing. "Affairs," in this context, is a word conveying no definite meaning to me.

#### "Stubby" Clinical Thermometers

As you indicate (p. 37), the British Standards Institution is likely to have uphill work if it tries to educate the public in a more careful use of clinical thermometers. Little experience in handling these adjuncts to medicine is needed to show that, in the words of the Institute's explanatory statement, "the precise time a particular thermometer will take to register the correct temperature depends upon a number of factors," It is probable that many a medical practitioner has continued to sleep soundly on account of the failure of a patient's clinical thermometer to register a sufficiently high temperature; whereas with an accurate reading by the same thermometer the doctor would have been aroused by his night bell. But why has the B.S.I. adopted the adjective "stubby" for one type of thermometer? In four out of five dictionaries that I have consulted about it (the fifth is silent) I have found a consensus of definition to the effect that stubby means, apart from specialised uses, "resembling a stubby" or "worn to a stub." Does either definition fit a slow-reading clinical thermometer by contrast with either of the other types? This appears to be one more instance of scientific words failing to observe the claims of etymology. But a doubt arises. Can it be that the B.S.I. meaning is specific and newly devised? "When I use a word," said Humpty Dumpty in "Alice Through the Looking-Glass," "it means just what I choose it to mean.'

#### **OVERSEAS NEWS**

#### **AUSTRALIA**

#### Women's Federation Formed.

THE women pharmacists' associations of the separate States of Australia have decided to federate into a national body.

#### AUSTRIA

#### 4,500 Miles with Wrong Drug

A DRUG that was flown 4,500 miles from the United States to save the life of a hæmophilic boy who had been bleeding since a tooth extraction on January 2, was found on arrival at an Innsbruck hospital on the afternoon of January 10 to be a smallpox vaccine instead of the blood coagulant serum required. A consignment of the correct serum arrived in Frankfurt, Germany, the same evening and arrangements were made to fly it to Munich, from where it was taken by car to Innsbruck. It arrived in Innsbruck the following morning. The boy's condition was stated to have improved after the first injection of the drug. He had been kept alive by frequent blood transfusions and the use of plasma not more than three hours old.

#### CANADA

#### Cosmetic factory in Toronto

A NEW factory for Yardley of London (Canada), Ltd., was opened in Toronto, Ontario, recently. Mr. R. T. Gardner (joint managing director, Yardley & Co., Ltd., London), was present at the opening ceremony.

#### Gamma Globulin Output Increase

ADDRESSING the annual meeting of the Canadian Public Health Association in Toronto recently, the Canadian Minister of National Health and Welfare forecast that production of gamma globulin at the Connaught laboratories would be more than doubled in 1954.

#### **ACTH Against Pemphigus**

AT a recent meeting of the Montreal Medico-chirurgical Society held in Montreal, the case history of a young man who suffered from pemphigus vulgaris (a disease that had been considered fatal) was outlined. After treatment with ACTH the patient was completely rehabilitated but it would be necessary for him to receive further treatments at intervals for the rest of his life.

#### Packaging "Commandments"

SPEAKING at a regional conference of the Packaging Association of Canada recently, the immediate past-president of the Canadian Association of Consumers gave a list of ten "commandments" the packaging industry should follow. She said the housewife should be given a package that protects the contents from deterioration; enables her to see what she is buying; opens easily; closes tightly for storage; is convenient to handle, carry and store; is stable and won't tip over easily; is honest in size in relation to its contents; has proper and adequate information on its label or cover; is not of odd weight, awkwardly shaped and in

convenient, and from it it is not difficult to extract the contents. Her tenth "commandment" was "Thou shalt not gild the lily." The speaker went on to mention housewives' complaints. She claimed that women dislike paying for cosmetic jars that outweigh their contents, dislike narrow necks on glass containers and containers that dribble.

#### FRANCE

#### Water for Patients, Drugs for Self

IN Paris, recently, a nurse (Albertine Combe) was sent to prison on charges of injecting water into patients who needed pain-killing drugs and of using the drugs on herself. The nurse worked on the night shift of a Paris hospital.

#### UNITED STATES

#### Vitamin from Sewage

THE Milwaukee, Wisconsin, Sewerage Commission has made arrangements for the production of vitamin B<sub>12</sub> from the dried and disinfected sludge from the municipal sewage disposal plant.

#### Plans for Nuclear Power

THE American Atomic Energy Commission has embarked on a programme to construct a full-scale power reactor that will produce a minimum of 60,000 kilowatts of electrical energy, with good possibilities of much higher output. It is hoped that it will be in operation in three or four years.

#### FANNING ISLAND

#### Cortisone Dropped by Parachute

AN emergency supply of cortisone was flown recently from Hawaii and dropped by parachute on Fanning Island, a Pacific atoll 1,500 miles distant. The drug was supplied in response to a request for it from the island's medical officer to save a patient's life.

#### HOLLAND

#### Arsenic in Vitamin Ampoules

BECAUSE of an error in the laboratory of an Amsterdam pharmaceutical factory, arsenic was used in several dozen boxes of vitamin C ampoules sent to Dutch doctors and pharmacists in the past three years. The exact number of victims is not known, but at least four patients died after injections. Several others have been seriously paralysed and some had amputations. Police have recovered all the unused ampoules.

#### TRINIDAD

#### Second Term as Mayor

MR. Joseph F. Nelson, a seventy-eight-year-old Trinidad pharmacist, has been elected mayor of Arima, Trinidad, for the second time. He first held office in 1945, and in the following year was elected deputy mayor. He was elected an alderman in the first aldermanic election in Arima on November 3, 1938.

#### WEST GERMANY

#### Chemical Equipment On View

DECHEMA Deutsche Gesellschaft für Chemisches Apparatewesen opened the Dechema Institute for Chemical Apparatus and Materials in Frankfurtam-Main, on December 4, 1953. The demonstration and display hans of the Institute were designed to enable visitors, German and foreign, to obtain a broad view of the position of the chemical apparatus and equipment field. The Institute will classify in one register all chemical apparatus and equipment.

#### SYRIA

#### Anti-locust Conference

A CONFERENCE to consider possibilities of intensifying international action against the desert locust in the Middle East was held in Damascus recently under the auspices of the United Nations Food and Agriculture Organisation. The conference recommended the establishment of two committees: An international co-ordinating commitwith representatives of countries (including the United Kingdom) taking part in the anti-locust measures; and an executive committee to prepare plans for an international campaign to confine the locust to the Arabian peninsula. The Food and Agriculture Organisation offered to contribute vehicles, spraying and dusting equipment, and a large quantity of insecticide for the first year's campaign.

#### **TANGANYIKA**

#### Medicine Man's Decline

A REPORT on the administration of Tanganyika in 1952, published for the Colonial Office recently, says that although the influence of the medicine man is "undoubtedly declining" there are still many people "who will first consult the local medicine man and try his remedies before going to the dispensary or visiting a qualified to the dispensary or visiting a qualified practitioner." The influence of the medicine men would continue to decline as education spread and confidence in modern medical science grew, but "the activities of indigenous practitioners are still very widespread." "Some confine their activities to the treatment of illness by herbal remedies, but others also lay claim to magical powers. Their activities are controlled by the criminal law-under which they may be prosecuted for contravention of the Witchcraft Ordinance or for harm caused by their use of poisonous substances and operative practices-and by native law and custom." estimated that there are 100,000 cases of leprosy in Tanganyika—18:1 per thousand of the population. There has been "a steady decline" in sleeping sickness. Up to the end of October 1952, a total of 249 cases had been notified, against 368 cases for the corresponding period of 1951. In 1949, 1,412 cases were reported. The following imports of narcotics during the first nine months of 1952 are given in the report: Opium (as tincture, extract, etc.), 4,192 gm.; codeine phosphate, 2,348 gm.; morphine, 1,432 gm.; cocaine, 428 gm.; physeptone, 14·4 gm.; and pethidine, 394 gm. At the end of the year twenty-three pharmacists were registered in Tanganyika. The report is published by H.M. Stationery Office, price 12s. 6d.

#### BRAZILIAN TRADE

#### **Changed Classifications for Imports**

NUMEROUS alterations have recently been made in the classification for importation of chemical and pharmaceutical products into Brazil, as a result of representations made by the domestic industry. Most raw materials required for the manufacture of essential pharmaceutical preparations, however, remain in category 1, of which 50 per cent, of the available exchange is allotted and for which the minimum premium is 10 cruzeiros per dollar (C. & D., 1953. II. 576).

The Export-Import Department, by

withholding licences to import pharmaceutical products during the first nine months of 1953, has created serious shortages in the country. Hospitals lack essential medicines and appliances, laboratories have curtailed production, owing to the shortage of raw materials, and many preparations in current use have disappeared from chemists' shops. Exchange auctions are now faced with a big demand for foreign currencies to import all kinds of medical, surgical and pharmaceutical goods. Imports of a large number of German products were suspended from November 1953 to January 31, as the quantities of exchange, as scheduled in a Braziltrade German agreement, exhausted.

Brazil signed reciprocal trade agreements in December 1953 with Uruguay and Bolivia. Uruguay wants to import vegetable waxes, valued at (figures in U.S. dollars) \$50,000 annually; vegetable oils, \$40,000; medicinal oils, \$30,000; products, pharmaceutical \$400,000; medicinal plants and drugs, \$10,000. Bolivia will receive annually pharmaceutical products valued at \$100,000; vaccines and serums, \$50,000. An Indonesian trade mission also visited Rio de Janeiro recently to discuss the bases for a reciprocal agreement with Brazil. Indonesia proposes to purchase menthol and pharmaceutical products.

#### Vegetable Waxes

By the end of November 1953, 4,648 tons of Ceara's 1952-53 crop of carnauba wax had been classified for sale, It has been announced in Fortaleza, the state capital, that only 748 tons now remain in stock in local warehouses. In the Lower Jaguaribe region trees have suffered badly from insect ravages, due to the prolonged drought. Professor Charles Marsal, of New York University, is expected to arrive in Brazil soon to study technical and commercial problems relating to carnauba and ouricuri waxes. He has been invited by President Vargas and will be assisted by delegates of American Wax Importers' Association. The visitors will travel in Piaui, Ceara and Bahia and then attend meetings at the Ministries of Agriculture and Finance and the Bank of Brazil.

Expenditure of £140,000 has been sanctioned to build and equip a laboratory to produce vaccines and the National Research Council is endowing secondary schools throughout Brazil with small chemical laboratories throughout

for student training.

A law creating a Foreign Trade Department of the Bank of Brazil in place of the present Export-Import Department has been approved. The new department will issue import and export licences, control prices, etc., of licensed merchandise, classify import products into categories according to their essentiality and finance high priority imports and exports.

since the matter had been raised by the Board the number of forms had been reduced, although both parties denied the existence of any arrangement.

On the recommendation of the Services Committee the Board decided to warn a chemist to exercise greater care in the future. It was found that a prescription dispensed by the chemist did not conform to the Drug Tariff in that the weight of the paste contained in zinc paste and ichthammol bandage was 170 gr. per sq. ft., instead of 300 gr.

#### Effect of Levy

The Northern Ireland comptroller and auditor-general, in his report on the General Health Services Board accounts for 1952-53, states that as a result of the shilling prescription charge, expenditure on pharmaceutical services showed a reduction for the first time. The total of £1,532,036 paid in that year was £149,490 less than in 1951-52. In addition to payments of £1,480,694 by the Board, chemists and suppliers of appliances received £74,736 from patients. Following the introduction of the charge there was a reduction of about 12 per cent. in the number of forms as compared with the corresponding period of the previous year. The total number dispensed was 4,127,254, or 404,836 lower than in 1951-52. The average cost per form to the Board rose, however, by twopence to 7s. 2d. Tests were made on fifty-five prescription forms dispensed by chemists. As a result, penalties amounting to £27 were recovered from seven chemists, and four others were cautioned. These fifty-five test prescriptions represented only one in every 75,000 forms issued during the year.

#### NORTHERN IRELAND HEALTH BOARD

#### **Oueries About a Maker's Cost Comparisons**

AT a meeting of the Northern Ireland General Health Services Board on December 30, 1953, a charge was made that, in a circular letter to all doctors in Northern Ireland, a leading company of manufacturing chemists had given misleading information about the comparative costs of its own pro-ducts and those in the National Formulary.

#### Comparative Prices

THE SECRETARY (Mr. G. D. Stewart) said that doctors had been circularised with a list of the prices of some of the company's products compared with those of their official equivalents. The list showed that in virtually every case the price of the company's product was lower. But while the information was correct for Great Britain it was completely wrong for Northern Ireland where, in fact, in nearly every case the official equivalent was cheaper than the proprietary product. Mr. Stewart said he had written to the firm bringing it to their notice, but in their reply they made a half-hearted attempt to query his figures. He wrote again

pointing out how important it was that the misapprehension should be cleared up without delay, and asked that the doctors should be circularised with an explanation that the comparison of prices did not apply in Northern Ireland. No reply had been received. The Board decided that the request should be repeated.

An interim payment of £119,399 to pharmaceutical chemists was authorised for November, together with an estimated balance of £5,728 for September.

It was disclosed in the minutes of the previous meeting that the Board had ordered the recovery from a doctor of £309 being the excess cost of a liver preparation prescribed on the Board's forms.

In the case of a chemist alleged to have received prescription forms direct from his brother who was a doctor, the Secretary stated that the figure of 41½ per cent. of forms written by the doctor and dispensed by the brother represented a considerable decrease (see C. & D., 1953.11.587). Mr. R. Getgood said it was significant that

#### DEVELOPMENTS IN THE UNITED STATES

MR. Wolf Vishniac, assistant professor of microbiology at Yale University, New Haven, Connecticut, has succeeded in separating several chemical components involved in photosynthesis. The colourless enzyme solution obtained from the defatted chloroplasts from spinach was combined with chlorophyll and illuminated. Under illumination, the solution was found to carry out chemical reduction including that of triphosphopyridine nucleotide, a reaction in the process of photosynthesis.

The combined efforts of American and Canadian scientists, working in cooperation with private and Government agencies, have resulted in the production of cortisone (compound E) and hydrocortisone labelled with carbon 14. The Upjohn Co. carried out a mould fermentation step and a chemical step in the elaborate cortisone synthesis.

Vacuum sublimation, a new process for the separation and purification of chemicals, has been introduced by the F. J. Stokes Machine Co., Philadelphia, Pennsylvania. It has been evolved from experience with the freeze-drying process in the prepara-tion of pharmaceuticals, and a patent covering the sublimation method has been granted to the company.

#### **NEW COMPANIES**

P.C.=Private Company; R.O.=Registered Office WHITECROSS DRUG STORES, LTD. (P.C.).—Capital £300, Directors: Rose Liberman and Samuel Liberman. R.O.: 195 Whitecross Street, London, E.C.1.

WINDEMER (CHEMISTS), LTD. (P.C.).—Capital £1,000. To carry on the business of chemists and druggists at 4 Royal Parade, Harrogate, Yorks, or elsewhere. Directors: Frank Dixon, M.P.S., and Matilda M. Dixon.

PARAMOUNT COURT PHAR-MACY, LTD. (P.C.).—Capital £100. Subscribers: Albert K. T. Fillo, M.P.S., and Andrei P. Penechoelsky. Solicitors: Alfred Kerstein & Co., 3 Clements Inn, London, W.C.2.

ARBORETUM PHARMACY, LTD. (P.C.).—Capital £1,000. To carry on the business of chemists, druggists, etc. Directors: Bernadine M. Atter, M.P.S., and Mary Drewry, M.P.S. R.O.: 38 Reginald Street, Derby.

SPRINGFIELD PARK CHEMISTS, LTD. (P.C.).—Capital £100. To carry on the business of chemists, druggists, etc. Directors: Hermann Rubin and Joyce J. Rubin, Solicitors: Percy Holt & Co., 2 Brighton Road, Purley, Surrey.

EYERENE, LTD. (P.C.). — Capital £100. To carry on the business of manufacturers of and dealers in fine chemicals and chemical products, etc. Directors: Frank A. Fox and Herbert Perkin. R.O.: 9 Richmond Chambers, Bournemouth.

H. J. TUFF, LTD. (P.C.).—Capital £100. To carry on the business of pharmacists, dealers in photographic equipment and materials, etc. Directors: Harry J. Tuff (chairman) and Mary B. Tuff. R.O.: 2A Harmer Street, Gravesend, Kent.

W. H. KING & CO. (CHEMISTS), LTD. (P.C.).—Capital £100. To carry on the business of chemists, druggists, drysalters, etc. Directors: Lazams M. Levy and Louise Levy, M.P.S. R.O.: Ling House, Dominion Street, South Place, London, E.C.2.

BYROM REAGENTS, LTD. (P.C.).—Capital £1,000. To carry on the business of manufacturers of hairdressing sundries, shampoos, reagents, etc. Directors: Cecil H. Byrom and Norman Wooldridge. R.O.: 27 Finsbury Square, London, E.C.2.

D. BARTON (CHEMISTS), LTD. (P.C.).—Capital £1,000. To carry on the business of photographic and general chemists, druggists, etc. Directors: Deborah Barton and Donald V. Barton, R.O.: 80 Park Avenue North, Willesden, London, N.W.10.

E. F. LANGDALE, LTD. (P.C.).—Capital £30,000. To carry on the business of distillers, herbalists, chemists, druggists, etc. Directors: Ernest W. Cove, Walter J. Cove and Sidney H. Cove. Solicitors: Stilgoes, 6 Sackville Street, London, W.1.

L. TODD, LTD. (P.C.). — Capital £3,000. To carry on the business of wholesale, retail and manufacturing chemists, druggists, etc. Directors: Hilda M. Todd, Ethel Yorke and

James P. Haworth, M.P.S., 64 Sunny-bank Avenue, Bispham, Blackpool.

A. L. LLOYD & CO., LTD. (P.C.).
—Capital £250. To carry on the business of manufacturers of and wholesale and retail dealers in insecticides, rodenticides, disinfectants, etc. Directors: Alice L. Lloyd, Gwyneth M. Lloyd. R.O.: Glenwood, Prince Avenue, Southend-on-Sea.

PAROXITE (LONDON), LTD. (P.C.).—Capital £1,000. To deal in chemicals, gases, drugs, medicines, etc., and to acquire a licence from Societe C.A.C.I. of 11 Rue St. Augustin, Paris, to exploit Paroxite and other chemical processes. Directors: Pierre C. Petroff, Victor Szidon and Ludmila Gray. R.O.: 417 Victoria House, Southampton Row, London, W.C.1.

DEREK ADAMS & CO. (BRIDG-END), LTD. (P.C.).—Capital £5,000. To carry on the business of manufacturing chemists and dispensing chemists, etc. Directors: Derek Adams, Dorothy M. Burnard, Lucy Adams, Harry Hislop, M.P.S., and Ronald E. A. Toms. R.O.: Offices of Graham Paul & Co., Queens Road Trading Estate, Bridgend.

TAYLORS (PHARMACISTS NEW-PORT PAGNELL), LTD. (P.C.).—Capital £3,000. To acquire the business of a retail chemist and druggist carried on by Frederick T. Taylor, M.P.S., at 36 High Street, Newport Pagnell, as T. & F. J. Taylor. Directors: Frederick T. Taylor, Florence M. Taylor and Glyn L. Bowen, M.P.S.

#### **BUSINESS CHANGES**

F. CLEMENTS & SONS, LTD., is the new title adopted by F. Clements, wholesale chemists' sundriesmen, 94 Ockendon Road, Essex Road, London, N.1.

THE SOCIETY FOR ANALYTI-CAL CHEMISTRY is the new name of the Society of Public Analysts and Other Analytical Chemists.

MR. J. D. TAYLOR, M.P.S., has taken over the business of Mr. C. H. London, M.P.S., at The Pantiles, Ferring, Worthing, Sussex.

#### **Appointments**

HARKER STAGG, LTD., Emmott Street, London, E.1, have appointed Mr. J. G. W. Leitch their advertising manager.

THOMAS SWALES (LEEDS), LTD., St. Stephens Road, Leeds, 9, have appointed Mr. T. B. Shore their representative in South Yorks, Derbys, and Notts.

JOHN WYETH & BROTHER, LTD., Clifton House, Euston Road, London, N.W.1, have appointed Mr. Alan Talbot, Ph.C., to their executive staff.

SMITH & NEPHEW, LTD., Welwyn Garden City, Herts, have made the following appointments in their publicity division:—Mr. C. W. Crouch, head of the division and group publicity controller; Mr. E. J. Fcnton, advertising manager, administration. The tclephone number is now Welwyn Garden 5151.

#### **INQUESTS**

Blood Samples Confused. — At a Bolton inquest on November 9, 1953, on a fifty-seven-year-old man, the jury returned a verdict of accidental death and said that death was "materially accelerated" by a blood transfusion he was given at the Bolton Royal Infirmary an hour before he died. The transfusion was based on a blood sample taken from another man of the same name in the same ward.

Virus in Plasma.—A verdict of death by misadventure was recorded by the deputy Southwark coroner at an inquest on January 12 on a fifty-one-year-old man to whom blood plasma infected with a virus had been given in 1949. It led to his death in December 1953. In reply to the coroner, who asked whether the danger of infected plasma existed today, Dr. F. E. Camps (Home Office pathologist) said: It is still a problem which is the subject of great research. There is no method by which the virus germs can be detected beforehand. The only way is to refuse blood donors who have had any jaundice.

Rider on Use of Anæsthetic.—At a Birmingham inquest on January 1, at which a verdict of accidental death was returned on Mr. Alfred Patrick, who had died in Birmingham General Hospita! while having a fractured wristbone set, the jury adopted as a rider recommendations on the use of Trilene put forward by a Home Office pathologist (Professor J. M. Webster) that:

gist (Professor J. M. Webster) that:

1. As it was not known whether a patient was going to take to the anæsthetic, he should be given drugs to calm his nerves before the actual anæsthetic.

2. As Trilene did not give a second chance to bring the patient round, only experienced anæsthetists should give it.

experienced anæsthetists should give it. The casualty house-surgeon at the hospital said that, as Patrick was restless on Trilene, he increased it a little. After the wrist was set, he noticed that the patient was turning blue. He immediately cut off the Trilene, raised the amount of oxygen, gave a heart stimulant and started artificial respira-

stimulant and started artificial respiration. The coroner said there was not the slightest evidence that Dr. Hayne did not give this anæsthetic to the best of his skill and ability.

#### Deaths from Barbiturates

#### Recommendation on Eire Law

At an inquest at Roscommon, Eire, recently a verdict was returned on a woman in accordance with medical evidence that showed that death was caused by an overdose of barbiturate, accelerated by hypostatic pneumonia of the lungs. The coroner said it was too easy for the public to get barbiturates, and the regulations should be tightened up.

#### No Clear Proof

At an inquest at Edmonton, London, recently on a man who had been found in a collapsed state, and had subsequently died without regaining consciousness, a pathologist stated that death had been caused by a form of barbiturate poisoning. It was an unusual mode of death and there was no clear proof of what had happened. It appeared that the drugs had had a cumulative effect.

# **PERSONALITIES**



Mr. J. P. Savage, who was recently elected chairman of Boots Pure Drug Co., Ltd. |(C. & D., January 2, p. 5).

MR. H. E. BROCKSOM 's c o l l e c t i o n of drug jars and vessels displayed at his pharmacy in Chapel Market, London, N.1 (see C. & D., 1953. II. 399) was

(see C. & D., 1953. II. 399) was the subject of a news "story" in the London Evening News on January 4.

MR. COLIN OFFICER, Edinburgh, retired on December 31, 1953, from his position as a representative of J. F. Macfarlan & Co., Ltd., Edinburgh.

MR. W. COWEN, M.P.S., Keswick, Cumberland, sailed on Christmas Eve 1953 for South Africa where he intends to record on colour cine film scenes of bird and animal life in Cape Colony, Natal, Transvaal and Southern Rhodesia, during a three-month tour.

MR. H. HUMPHREYS JONES (former principal of Liverpool School of Pharmacy and former chairman of Liverpool Chemists' Association), has retired from the active list of Liverpool magistrates, having reached the age limit. He has been a justice of the peace since 1938.

MR. J. F. L. BARRY (son of Mr. Patrick J. Barry, M.P.S.I., Loughrea, Eire) recently qualified M.B., B.Ch., B.A.O. and L.A.H. Mr. Barry was educated at Blackrock and University Colleges, Dublin. He is a keen Rugby player, was captain of the second university team, and was a member of the winning colours team in 1952.

MR. MAURICE P. STILES, M.P.S., who has been appointed sales manager to Meggeson & Co., Ltd., London (C. & D., January 9, p. 28) is the son of Mr. P. C. G. Stiles, M.P.S., Market Harborough, Leics. After an apprenticeship with G. Peck & Son, Ltd., Cambridge, he qualified from the College of the Pharmaceutical Society, London, in 1932. Mr. Stiles's war service was with the Royal Air Force, from which he was demobilised with the rank of squadron leader.

# **DEATHS**

AVERY.—On December 10, 1953, Mr. Cuthbert Johnson Avery, M.P.S., High Bank, Houghton-on-the-Hill, nr. Leicester, aged seventy-six.

BARNETT. — On December 27, 1953, Mr. Frederick Thomas Barnett, M.P.S., 3A College Parade, Harrow, Middlesex, aged forty-four.

BEEDLE.—On December 22, 1953, Mr. Leonard Edward Beedle, M.P.S., Hollybank, Lymm Road, Bollington, nr. Altrincham, Ches, aged eighty-six. Prior to moving to Bollington in 1940, Mr. Beedle was in business in Manchester.

BEENY.—On January 1, Mr. Wallace Frederick Beeny, 41 Queen Vic-

toria Street, London, E.C.4. Mr. Beeny qualified as a chemist and druggist in 1898.

HINDLE.—On December 23, 1953, Mr. Archibald Hindle, M.P.S., 11 St. Michaels Crescent, Bolton-le-Sands, nr. Carnforth, Lancs, and formerly of 13 Dowry Square, Bristol, 8. Mr. Hindle qualified as a chemist and druggist in 1906.

JONES.-At his home, Rusper, Barnet, Herts, on January 10. Mr. William Herbert Jones, aged sixty-six. Mr. Jones was founder and chairman of W. H. Jones & Co. (London), Ltd., shippers. He started in the City of London as an office boy at the age of fourteen in 1901 at 7s. per week. A territorial private, he was mobilised in 1914 and was demobilised in 1919 with the rank of captain. After twenty-seven years with W. A. Sparrow & Co., Ltd., followed by ten years as a half-partner in Forbes, Munn & Co. (colonial department), in 1939 he formed the company which bears his name. He moved it to Barnet at the outbreak of war. He was chairman and managing director from the formation of the company until a few months ago, when he relinquished the position of managing director to his two sons, who have been with him in the business since the end of the war. Mr. Jones has travelled widely in Australia, New Zealand, and South Africa. He was co-opted on the Barnet urban district council during the 1939-45 war and although he resigned in 1946 he continued to serve as one of the council's representatives on the South Herts divisional education executive and on local charities. He was a freeman of the City of London and until ill-health in 1953 made it necessary for him to resign from all committees he was on the council of the London Chamber of Commerce and on the committee of the Australian and New Zealand Merchant Shippers' Association. A life-long Liberal and free trader he fought in the Barnet Division as Liberal candidate in the 1950 and 1951 general elections, and was a keen and active worker, both in the former St. Albans Division and the Barnet parliamentary division. It was only in the last twelve months that his search for suitable premises to meet the increased needs of his company was successful, and it was a pleasure to him to see his company installed in its new premises at Tower House, Whetstone. In spite of a critical operation in June 1953 he personally supervised the heavy work involved in converting the premises.

KERSHAW. — On January 3, Mr. Frank Beckett Kershaw, 5 George Avenue, Marton, Blackpool, Lancs. Mr. Kershaw qualified as a chemist and druggist in 1895.

LEWIS. — On November 18, 1953, Mr. James Henry Stanley Lewis, M.P.S., Market Square, Ware, Herts. Mr. Lewis qualified as a chemist and druggist in 1906.

McCLEAN.—At Ormonde, Rashee Road. Ballyclare, co. Antrim, on January 4, Mr. John James McClean, M.P.S.N.I. Mr. McClean qualified as a pharmaceutical chemist in Northern Ireland in Dccember 1929, and prior

to his death carried on business in Market Square, Ballyclare.

STRASS. — On January 11, Mr. Robert Strass, 29 Ingram Avenue, London, N.W.11, aged fifty-five. Mr. Strass was managing director of M. W. Hardy & Co., Ltd., shippers.

TOLLITT.—On December 20, 1953, Mr. William Tollitt, 28 Beaumont Road, Worthing, Sussex, aged ninety. Mr. Tollitt qualified as a chemist and druggist in 1888.

THE late Mr. Henry Birt, M.P.S. (C. & D., January 9, p. 30), was in business at 25 The Brittox, Devizes, Wilts, 1925-45 in the pharmacy now owned by a son, Mr. R. N. Birt, M.P.S., and not as previously stated.

# NEW BRITISH STANDARDS

COPIES of the following new British Standards are available from the British Standards Institution, Sales Branch, 2 Park Street, London, W.1.

RECOMMENDED COMMON NAMES FOR PEST CONTROL PRODUCTS (B.S. 1831, Part 2, 1953, price 2s.):—The Standard contains six common names for pure pest control chemicals well known in agriculture. Part 1 was published in 1952 and further lists will be published from time to time. Of the six names, allethrin and methoxychlor are already accepted as coined common names by the United States Interdepartmental Committee on Pest Control. In both the United Kingdom and the United States the names have been pre-empted so far as possible for common use by recording them with H.M. Patent Office and the U.S. Patent Office, respectively. The other names given are antu, dimefox, mipafox, and tecnazene. The numbering of the common names is a continuation of that adopted in Part 1.

XYLOLES (B.S. 458, 1953, price 7s. 6d.): As in the edition of the standard published in 1939 the "Standard Specifications for Benzole and Allied Products," published by the National Benzole Association, has been used as a basis for the specifications of the nine grades of xylole. The main features of the revised standard are the introduction of (a) specifications for products of lower specific gravities than those previously standardised, (b) two additional grades of xyloles, and (d) an improved copperstrip test capable of numerical interpretation, for those products for limit of corrosive sulphur.

# LEGAL REPORT

Nine Months in Prison.—At Bradford Quarter Sessions, on January 7, Jack Sharp, Aberdeen Terrace, Bradford, was sentenced to nine months' imprisonment for stealing £5,000 from his employers, Bradford Chemists' Alliance (C. & D., 1953. II. 412). Sharp, who pleaded guilty, said he had worked seven days a week and fourteen hours a day and was suffering from strain and overwork. The company had since obtained High Court judgment for the return of the money.

# PHARMACEUTICAL SOCIETY OF GREAT BRITAIN

Monthly Meeting of Council

A MEETING of the Council of the Pharmaceutical Society was held in London on January 6, the president (Mr. T. Heseltine) in the chair. The President recorded with profound regret the death of Mr. G. A. Mallinson, O.B.E. (see C. & D., January 9, p. 29). He said that apart from the esteem and affection in which Mr. Mallinson was held in pharmacy, he was trusted outside the ranks of the profession. He had a happy knack while steadfastly working for pharmacy of never forgetting the public and his country. The Council stood for a few moments in silence as a mark of respect to his memory.

THE PRESIDENT welcomed Mr. S. Hughan (chairman of the Executive of the Scottish Department) and announced that Christmas and New Year greetings had been received from pharmaceutical organisations throughout the world.

## Statement to be made on Titles

It was reported that the Privy Council had approved the special by-laws made on January 1 (C. & D., January 9, p. 25). It was decided that the abbreviation for Fellow of the Pharmaceutical Society should be F.P.S. and that a statement should be published explaining the legal position on titles and certificates resulting from the Pharmacy Act, 1953, and the Supplemental Charter and new by-laws.

The Council adopted Education Committee recommendations that the examination regulations should be amended to provide that the re-entry fee for two subjects of the Qualifying examination should be £6 6s., and in all subjects, £10 10s.; and that late entries for the examination should be accepted up to May 1 or November 1 on payment of an additional late entry fee of £3 3s., and otherwise as necessary in consequence of the Pharmacy Act, 1953; also that the local fee charged in respect of certain practical examinations should be discontinued.

A letter from Sir Henry Dale (writing for the Wellcome Trustees) offered a further sum of £10,000 for Wellcome Pharmacutical Research Fellowships (value of each £400 yearly) during the next ten years, with the proviso that not more than £1,200 should be spent in any one year without special authority. On the Education Committee's recommendation the Council accepted the offer and asked the secretary to convey to the Trustees the Council's deep appreciation. The Committee reported that the Ministry of Education in collaboration with the Society was arranging a refresher course for pharmacy teachers, to be held in Cranfield, Bedfordshire, April 20-24. The Committee received the 1953 reports of the boards of examiners for England and Wales and for Scotland, respectively. Committee decided to consider a resolution asking the Council to reconsider its educational policy on the standard of entry to the profession, in the light of the needs of candidates wishing to proceed to a degree. MISS M. C. ISLIP said that she felt that the reports showed a very unsatisfactory state of affairs. How much publicity was given to the reports in the schools? Greater publicity among teachers and students on the matters raised in the reports might be of value and she asked whether anything further could be done there. The chairman of the committee (Mr. C. W. Maplethorpe) said that the question of providing further publicity to reports of examining boards would be considered. On the recommendation of the committee the Council decided that a letter should be sent to the registering authority in Ontario regretting the decision of that body that no further applications for reciprocal registration would be considered before June 30. It was decided that a letter should be sent to all pharmaceutical authorities with which the Society had reciprocal arrangements, with the object of initiating written discussion on the subject.

The Council appointed the following as members of a

Veterinary Committee: Dr. J. A. Giles, Messrs. W. S. Howells, G. H. Hughes, C. W. Maplethorpe, J. F. McNeal, H. T. Thomas (members of Council), Messrs. N. C. Collins, London, D. Hey, York, A. G. Large, Thetford, O. F. Morgan, London, R. Neal Morris, Ashbourne, A. E. Moss, Shrewsbury, R. Nottingham, Northampton, S. W. Robinson, Liverpool, and E. R. Underhill, Callington. The Council also appointed Messrs, Hughes, Maplethorpe, Nottingham and the secretary and registrar to serve as the Society's representatives in a committee due to be formed between the Society, the Association of British Pharmaceutical Industry, the Royal College of Veterinary Surgeons, and the British Veterinary Association.

A resolution from Tees-side Branch deploring "the apparent lack of interest and purpose" on the part of the Council in securing pharmacists a proper status in H.M. Forces was received. It was agreed that the secretary and registrar explain the position to the branch. A resolution from the Slough Branch called for immediate institution of area responsibility by members of Council. The secretary and registrar was asked to reply that the Council had no power under the Society's constitution to adopt the suggestion.

From the report of a meeting of the Liaison Committee with the National Pharmaceutical Union, it was noted that the Society and the Union agreed that five years was the appropriate period in which any change over from the apothecaries to the metric system should take place. It was agreed to inform the Board of Trade accordingly.

The Council discussed representations which had been made to them by several branches regarding reports, which had appeared in certain newspapers of parts of an address on unqualified assistants given to the Durham Branch by Mr. F. C. Wilson in December 1953 (see C. & D., 1953. II. 589). The Council agreed to consider whether any change should be made in the arrangements for the reporting of branch meetings and made the following statement:

The Council desire to remind members that after consideration of the decision of the annual meeting in May 1953 on the subject of the recognition of assistants in pharmacy, they decided that because the position of assistants was one aspect of the larger question of the conditions under which pharmacy is practised, an examination of it was desirable owing to recent changes and a memorandum should be prepared as a basis for discussion of the lines on which such an examination might be made. No further action has been taken by the Council regarding the recognition of assistants or will be taken without first submitting a report to an annual or special meeting of the Society.

The Benevolent Fund and War Aid Committee's report stated that Christmas gifts of £2 2s. each were made to thirty-one children less than sixteen years old whose parents are receiving assistance from the Benevolent Fund, and that similar gifts were made to six children whose parents are receiving assistance from the War Aid Fund. Grants amounting to £102 had been made to two widows and two members. A recommendation for another grant of £97 was approved. Three applications were deferred and one was withdrawn. From the War Aid Fund a grant of £20 was made. The quarterly reports showed that in the last quarter of 1953 grants amounting to £3,167 were made from the Benevolent Fund to forty-six applicants (£2,626 and thirty-six applicants in the December quarter, 1952). Receipts were £12,379 including subscriptions of £7,118 (£14,093 and £7,357). The Warden's report stated that in the month to December 16, 1953, there were twenty guests at Birdsgrove House. They stayed for an aggregate of fifty weeks (twenty-four guests and forty-one weeks in 1952). Gifts in cash or in kind were received from seven guests. The secretary reported a gift from the Guild of Public Pharmacists of a walnut dressing table for one of the

bedrooms and an oak tree which had been planted in the grounds.

The report of the Law Committee stated that in November 1953, the Society's inspectors and agents visited 1,238 authorised scllers, 158 listed sellers, and 419 drug-store proprietors. Ten alleged infringements of the Pharmacy Acts were considered and appropriate action taken. A letter had been received from the secretary of the Poisons Board stating that the Board had agreed to recommend that the Poisons Rules should be amended to recognise the National Formulary equally with the British Pharmacopæia and British Pharmaceutical Codex.

It was reported that sixty-six persons had been registered as apprentice or student in November 1953 and thirty-nine during December making a total of 838 in 1953. The registrar had restored to the register the names of seven former members. The Council agreed that the names of three

pharmacists removed from the registers in July 1934 should be also restored. A recommendation that one pharmacist formerly resident in Northern Ireland and two pharmacists formerly resident in New South Wales should be registered under reciprocity arrangements was adopted.

On the recommendation of the Finance Committee the Council approved the action of the secretary in making payments amounting to £3,787 and the action of the treasurer in paying accounts amounting to £36,501.

An Order of the Privy Council was received nominating Drs. B. A. Young, J. A. Giles and Professor A. D. Macdonald additional members of the Council of the Society for a further period of office. It was reported that since the previous meeting of the Education Committee approval for the purpose of practical training had been granted to 173 pharmacies. Application from two manufacturing pharmaceutical laboratories were deferred.

# TRADE NOTES

Again Available.—The Müller Laboratories, Wotton-under-Edge, Glos, state that Müller nutrient tablets are again available in limited quantities.

Children's Aspirin Tablets.—Arthur H. Cox & Co., Ltd., Brighton, report a steady demand for the soluble flavoured children's aspirin tablet they claim to have have been the first to introduce.

Lipstick "Fashion-colour."—Goya, Ltd., 161 New Bond Street, London, W.1, have introduced Rosy Red, "a great new fashion colour," in their lipstick series. Advertisements are appearing in women's magazines.

"Guaranteed Grades" for Toothbrushes.—Spa Brushes, Ltd., Chesham, Bucks, are issuing their Spa toothbrushes in Sparklon or bristle, with a guarantee that they are uniform in texture according to the grade marking (hard, medium and soft).

In Bulk for Dispensing. — Fletcher, Fletcher & Co., Ltd., Vibrona Laboratories, London, N.7, announce that Effico tonic is now available in 80-fl.-oz. winchesters for dispensing. The existing dispensing pack of three 8-fl.-oz. bottles in a carton continues to be available for the present but is being withdrawn eventually.

To the Original Formulas, — Gale, Baiss & Co., Ltd., 274 Ilderton Road, London, S.E.15, state that they manufacture the Huxley brand preparations (Wintogeno, Ner-Vigor, etc.), to the original formulas of the Anglo-American Pharmaceutical Co., formerly of Croydon, from whom they have acquired the sole rights of distribution.

New Insecticide Packs.—Secto Co., Ltd., Shaw Street, Blackburn, Lancs, have introduced a new ant powder, "especially formulated to destroy that difficult pest." The powder is packed in a hand-operated squeeze drum. Also in a squeeze drum is the same company's new BHC insect powder. A new non-stop continuous action sprayer is available at a low price. Bonus offers are available on all orders placed for delivery before April 30.

Simpler Home Waving.—Toni Cosmetics, Ltd., Harlcquin Avenue, Brentford, Middlesex, are introducing a new, "faster and simpler" Toni curler kit that will be available immediately after Budget day. From that date the two

lines in the current Toni range—the whole-head refill and the end-curl refill—are being discontinued. Toni spin curler kits, standard kits and end-curl kits are discontinued from January 1. Large and midget spin curlers are now being packed in display cartons.

Bonus Offers.—SPA BRUSHES, LTD., Chesham, Bucks, are sending out their Sparklon tooth-brushes in four bonus parcels, details of which are to be found elsewhere in this issue.—From January 11 to February 22, VITAMINS, LTD., 23 Upper Mall, London, W.6, are offering a bonus discount on Bemax, equivalent to thirteen to the dozen on five parcels, listed elsewhere.—A bonus parcel of Vulfix shaving brushes is available during February and March from the PROGRESS SHAVING BRUSH CO., LTD., Progress Works, Mottram Street, Stockport.

Standardised Hypotensive Agents. — E. R. Squibb & Sons, 17 Old Bond Street, London, W.1, have introduced Raudixin tablets, a new product for the treatment of hypertension. Each tablet contains 50 mgm, of Rauwolfia serpentina assayed in animals by a technique evolved by the company so as to ensure standardised potency, Raudixin lowers blood pressure and slows the pulse rate, those effects being gradual and sustained, and it also produces mild sedation. The drug has extremely low toxicity and can safely be given for protracted periods; tolerance to the hypotensive action has not becui reported. Raudixin tablets are supplied in bottles of twenty-five, 100 and 1,000.

Forthcoming Fairs.—The first of the 1954 regional Business Efficiency Exhibitions to be organised by the Office Appliance and Business Equipment Trades Association, sponsors of the national Business Efficiency Exhibition, takes place at Fenton Street Barracks, Leeds, February 23-26.—The Daily Mail Ideal Home Exhibition, 1954, is being held in London, March 2-27; it will be open daily from 10 a.m. to 10 p.m.—The fifth annual Harrogate Gifts and Fancy Goods Fair takes place, February 1-5, 1954.—The Leipzig Trade Fair is being held September 5-15.—The 38th Swiss Industrics Fair is being held in Basle May

A Wood Preservative Makes Headway.—Rapid restoration of overseas connections and an expansion of exports during the first ten months of 1953 were reported at a sales convention of Cuprinol, Ltd., in London on December 11, 1953, and presided over by Mr. L. E. Oldridge (chairman of the company). During the 1939-45 war it became impracticable to devote raw material or plant capacity to meeting the requirements of most former customers. A good proportion of Cuprinol output of all kinds is still earmarked for the Admiralty, War Office, Air Force and Colonial Governments but the company is now able to devote more time and output to the domestic and export markets. Standard Cuprinol grades went in 1953 to fourteen different countries. Developed primarily to combat fungus and boring insects prevalent in temperate climates, Cuprinol wood preserva-tives successfully treat virulent types of fungus and insects in tropical zones. Many horticultural customers who used Cuprinol before the war find that their greenhouses and much of their wooden equipment have stood up to this day in conditions that would have caused deterioration in untreated timber. Cuprinol also gives excellent protection on packing cases used for export, particularly for long voyages and storage under tropical conditions.

# PRINT AND PUBLICITY

Booklets and Leaflets

ABBOTT LABORATORIES, LTD., Perivale, Greenford, Middlesex: "Veterinary Seleen." Pp. 8.

THE DISTILLERS CO. (BIOCHEMICALS), LTD., Fleming Road, Speke, Liverpool, 19: "It Pays to 'Distafeed'", Pp. 4. "Distafeed Penicillin Supplement." Pp. 4.

THE GENERAL ELECTRIC CO., LTD., Magnet House, Kingsway, London, W.C.2: "List of Products," pp. 40.

GLAXO LABORATORIES, LTD., Greenford, Middlesex: "Against Diphtheria, Whooping-Cough, Tetanus" (4-p. card); "Benapen" (4-p. "essential facts" card).

PHARMACEUTICAL LABORATORIES GEIGY, LTD., Rhodes, Middleton, Manchester: "Steroxin" (4-p. leaflet).

PHARMACEUTICAL SPECIALITIES (MAY & BAKER), LTD., Dagenham, Essex: "Ansolysen" (4-p. leaflet); "Brulidine (second edition of 18-p. booklet).

ROCHE PRODUCTS, LTD., Welwyn Garden City, Herts: "Gantrisin Eye Drops" (blotter).



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# Prescribers' Freedoms

An absolute assurance has been given to the medical profession by the Ministry of Health that prescriptions for drugs listed in categories 5 and 6 will not be referred by the Pricing Bureaux for investigation merely because they come within those categories, but only when the individual doctor's prescribing costs are substantially above the average for his area. We welcome the assurance, and congratulate the General Medical Services Committee of the British Medical Association on pressing to a satisfactory issue this important point to which we have referred more than once. Undoubtedly there has been widespread misunderstanding on the part of many doctors who have imagined that they are 'not allowed" to order medicines so listed, and might be summarily surcharged for doing so as they are when they prescribe substances deemed to be foods or toilet preparations.

The Ministry's assurance relates, in terms, only to categories 5 and 6, but the position is, of course, the same in regard to categories 2, 3 and 4. Few practising physicians, we imagine, will accept the thesis that no preparation in categories 2, 3 or 4 is therapeutically more effective than its standard substitute. Practically every doctor has some favourite proprietary medicine or medicines which his experience indicates may be, for their purpose, superior to anything official medicine can offer. Provided his general prescribing averages are moderate he may, without fear, prescribe those preparations in which he has confidence.

The assurance should go far to restore to the medical profession that freedom of prescribing which seemed to be threatened by the issue of "black" lists.

# The New Charter and By-laws

THE Pharmaceutical Society is to be congratulated on the grant of its new Charter, the text of which has been published. Its simplicity and clarity, as compared with the original Charter of 1843, is striking. For a document of such importance, its form, with the absence of ribbon and seal or parchment rollers, is perhaps disappointing. However, its terms are the main consideration, and it is of great significance to pharmacists to have the Society's objects restated in terms appropriate to the times. The most important change is that which replaces a reference to "the protection of those who carry on the business of Chemist and Druggist" with the declaration that it is one of the objects of the Society "To maintain the honour and safeguard and promote the interests of the members

in the exercise of the profession of pharmacy."

That change was necessary, as stated in the petition to the Privy Council, on account of the changed character of the membership as compared with that of 1843. So many pharmacists do not carry on the business of chemist and druggist in these days. So many corporate bodies, which have no claim to protection from the Society, do. Nevertheless, most members are so closely associated with the conduct of retail business that, in the direction of the Society's affairs, no narrow idealistic conception of what is meant by "the profession of pharmacy" must be permitted to prejudice what is generally understood to be the proper business of a chemist and druggist. Incidentally, the new Charter seems to be the first occasion on which any strictly official document or statute has referred to the functions of members as the "exercise of the profession of pharmacy." To understand another aspect of the changes brought about in the Society's objects demands a consideration of the extent to which the judgment in the Jenkin case can still be applied. Admittedly, the Council has stated its intention of adhering to the situation established by the judgment under the 1843 Charter, but that Charter is now specifically revoked, and the interpretation of the one that takes its place is an open matter, whatever the intentions of the present Council. Future generations may have their own ideas as to the proper scope of the Society's objects.

The procedure for making by-laws is modified by the Charter. The Council is required to give members sixty days' notice of any intended amendment, addition or revocation of the by-laws before submitting it to the Privy Council for approval. The interval of sixty days replaces the original provision, requiring the by-laws to be submitted to three meetings of the Council. Although, in period of time, the difference is small, the absence of occasion to report progress as the time runs out is equivalent to silencing the auctioneer's "Going-going" which precedes the unalterable "Gone!" An interval of silence has been substituted for what was in effect a succession of warnings. Whether or not that is a disadvantage depends upon the degree of confidence between administration and membership at the material time. Scottish members will note with satisfaction that the Scottish Department is now founded on the Charter, and that consitutionally York Place is no longer dependent upon the grace of the Council.

An innovation that permits the Charter to be changed at the will of the Council, subject to the confirmation of a Special General Meeting of members and by Privy Council approval, is a step that may have considerable influence on the future development of the Society. Had such a feature existed in the Charter at the time of the Jenkin case, subsequent events might, for good or ill, have had quite a different pattern. The initiative, which is left in the hands of the Council in this respect, does not seem to be closely controlled by requiring the concurrence of a Special General Meeting. With a membership of 26,000, such meetings are not always fully representative, and one would have liked to have seen the Branch organisation brought into this picture. A meeting of Branch Representatives is a much more reliable authority on the views of members than any general meeting, and as a method of communication between Council and membership it has been used with increasing effect during recent years. Indeed, those meetings have become so important in the Society's organisation that it is doubtful if a Special General Meeting of members could be called without first making peace with the Branches by calling a meeting of Branch Representatives at the same time and to consider the same agenda. If that is so, it would only have been realistic to have given in the Charter some constitutional status to the Branch Representatives' meeting. As things stand, the Branch organisation has not been given the honour of recognition in the Charter, although in the by-laws, according to the draft which is all that is available to us so far, the Council is pledged to maintain the Branch system. On such an important matter as the revision of the Charter, should it arise, the Branch Representatives' meeting could have been given a constitutional rôle to play without interfering in any way with the responsibility of the Council in the general conduct of the Society's affairs in other respects.

One disappointing feature of the constitutional changes is that, whereas the Charter sets out the objects of the Society in general terms, leaving detailed regu-

lation to the by-laws, it appears that those by-laws make ample reference to members' duties and obligations but, apart from a section on benevolence, say little about what are sometimes described as the privileges of membership. It is understood that no substantial changes of that type have occurred. The maintenance and services given by the Society's library, for instance, are of great value to members. Are we likely to find that some day the library is, in the interests of some cultural or educational motive, put into other hands, as was the Society's school? The idea seems fantastic at the present time, but there is nothing in the by-laws to protect the future interests of members in this respect. In the days of voluntary membership the privileges of membership had to be maintained for the survival of the Society. The position is now quite diffcrent. It should not be expected of members that they must take their privileges for granted but be regulated as to their duties.

The Charter and by-laws are vital documents calling for close study. This preliminary examination demonstrates that only a live and active membership can take full advantage of the new constitution. It is hoped Branches will fully consider and discuss these matters.

# CORRESPONDENCE

Letters when received must bear the name and address of the sender, not necessarily for publication. The Editor does not hold himself responsible for the views expressed.

#### TROPANE ALKALOIDS

SIR,—Having read your report (C. & D., January 9, p. 31) on the information from the laboratories of this company of the production by synthesis of the alkaloids of the tropane series, may I be peimitted to add one point in clarification of our announcement. While it is correct to say that atropine, hyoscyamine and homatropine are now being produced by total synthesis, hyoscine has not yet been synthesised. The hyoscine molecule is not a particularly complex one but it presents certain difficulties to the chemist. Although it is not improbable that they will be overcome, natural sources are at present used for the production of that particular alkaloid.

EDINBURGH, 11 JOHN H. RAMSAY, Managing director,
T. & H. SMITH, LTD.

# WARFARIN RODENTICIDES

SIR,—We feel that the note in your January 9 issue (p. 32) on warfarin should be amplified to explain to the trade the true facts on the development of anticoagulant rodenticides. The first work and publication on the new principle of rat killing was by Dr. J. A. O'Connor, of Ward, Blenkinsop & Co., Ltd. The first trials in the United Kingdom were carried out by Insecta Laboratories, Ltd. company Sorex (London), Ltd., was formed by Ward, Blenkinsop & Co., Ltd., and Insecta Laboratories, Ltd., to develop new rodenticides and insecticides. Warfarin was first made in the laboratories of the Wisconsin Foundation in the U.S.A. The first warfarin made in England was manufactured by Ward, Blenkinsop & Co., Ltd., and submitted by Sorex (London), Ltd., to the Ministry of Agriculture and Fisheries for their extensive trials. Following the Ministry's circular dated November 24, 1951, Sorexa was introduced to sanitary inspectors and professional users in this country. (Sorexa had already been sold to eight countries in Europe and America.) Some months later Prior Chemical Co., Ltd., announced that they were manufacturing warfarin; and it was not until relatively recently that other preparations appeared on the home market. Sorexa products have now been sold to over sixty-five countries throughout the world and still contain warfarin manufactured by Ward, Blenkinsop & Co., Ltd., the originators of anticoagulant rodenticides. We continue to publish complete technical information on all aspects of rodent control and we wish it to be known that we are a British company, selling a British product based on a British idea—and we are proud of it.

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# TRADE UNIONS IN PHARMACY

SIR,—In his wordy tirade (C. & D., January 9, p. 40) against the Registered Pharmacists' Union and myself, Mr. Hiscock (assistant general secretary of the Union of Shop, Distributive and Allied Workers and the Association of Pharmaceutical Employees) has intentionally omitted to make any reference to the guerilla tactics used by his union's officials, in the Bristol area, by the threat of strike action of the multifarious members against contractors under N.H.S. dispensing service, as a result of which a small group of pharmacists in their employ were intimidated by the threat of dismissal into joining that union. Furthermore, by deleting the two adverbs "truly" and "fully," he has altered the context of my letter (C. & D., December 28, 1953, p. 544). The omissions are significant. It is time some pharmacist spoke plainly about the piebald structure of the employee representation on the National Joint Industrial Council for Retail Pharmacy.

The figures Mr. Hiscock gives of R.P.U. membership should be considered in the light of the organised campaigning by his union since the R.P.U. was founded, even at the level of the House of Commons. It is surprising the R.P.U. has even survived. No other professional organisation can show such a record against overwhelming odds. However, the R.P.U. membership has started to rise again, as the next figures will show. It must also be borne in mind that the numbers were those of live members (subscriptions fully paid at the time of rendering the return); also that they are all pharmacists and members on a voluntary basis. Employee pharmacists approximate 15,000. It can be computed there are about 833 co-operative-movement employee pharmacists and they are, by the restrictive employment clause, conscripted members of the U.S.D.A.W. (A.P.E.). Part of the remaining 14,000-odd only are organised in the Association of Scientific Workers, British Association of Chemists, Confederation of Health Service Workers, Chemi-Workers' Union, Guild of Public Pharmacists, and R.P.U. The membership figures of pharmacists in Mr. Hiscock's unions have never been disclosed, but outside the "co-op" movement it can be stated they do not cut much ice. Unfortunately the large majority of retail employee pharmacists are unorganised. It is appropriate that I should recall that Mr. Hiscock's unions were unsuccessful in their attempt to "muscle in" on the Whitley Council when the employee pharmacists were subdivided up at the Ministry. Their declared figures, in support of his union's claim. were more slender than even those of the R.P.U. he rants about. It is true his union started the Joint Industrial Council, but it started on the wrong foot in that it assessed the pharmacist's status as being that of a shop manager or assistant. Let Mr. Hiscock inquire from the majority of pharmacists their opinion of the J.I.C. and he will be surprised at the reply. Regarding my "disruptive efforts" being treated with contempt by employee pharmacists it might surprise Mr. Hiscock that some time ago a pharmacist, an employee of the co-operative movement, was brought before the Statutory Committee. He was—under the conditional employment clause—a member of U.S.D.A.W. (A.P.E.). There were some who thought that the man erred in the main by allowing the human element to creep in. Possibly on account of my "disruptive propensities," I was approached by several pharmacists of different levels to fight this man's case by setting up an appeal for a legal aid fund on his behalf. It was of course for me as an individual pharmacist, a gigantic task. So I approached the Council of the R.P.U. and asked for a substantial donation to start such a fund, and they assented subject to corroboration of the details. As things turned out, there was no necessity to proceed to the full extent, but the moral is obvious and requires no implementation by me.

EAST BARNET

G. H. ARMITAGE

SIR,—To any pharmacist seeking to follow recent developments, it is difficult to see just why Mr. Hiscock (C. & D., January 9, p. 40) has chosen this moment to make a lengthy contribution containing little that is new. From your news and correspondence columns we have seen that, in a specific case, his union took certain action, as a result of which application has been lodged, on behalf of the pharmacists affected, for investigation by the Ministry of Labour and National Service. That application could have been lodged by the pharmacists themselves, but was in fact conveyed by the Retail Pharmacists' Union. The relative sizes of the two unions concerned in no way affects the issue, which is one of far-reaching interest to the whole profession, and vitally so to those employed in retail. Further comment on the case itself, before the official hearing, would be inappropriate. Mr. Hiscock's letter does, however, suggest one question to those of us who are seriously concerned to see a truly representative organisation for employed pharmacists. On all sides it is agreed that as a profession we are very difficult to "organise." To what extent is the survival of the A.P.E. dependent upon the gratuitous assistance of employers who make trade-union memberships a condition of cryice? membership a condition of service?

BRISTOL

H. LONG

# NITROFURAZONE IN MEDICINE

Str.—We should like to draw your attention, and that of your readers, to a misleading observation made in your review of the British Veterinary Codex, 1953 (C. & D., December 26, 1953, p. 638) which states categorically that nitrofurazone has no application in human medicine. Nitrofurazone, under the trade name Furaein, has been freely available to the medical profession since 1944, and there are a substantial number of reports in the literature confirming its value as an antibacterial agent in the field of human medicine. Furacin preparations are widely used throughout the United Kingdom, and have found a particular place in institutions specialising in plastic and burn surgery. They have also been adopted as the antibacterial dressings of choice in many industrial and nationalised concerns. Their increasing popularity in the treatment of wounds, burns, ulcers and similar conditions in man is probably due to their outstanding feature in that, as yet, there have been no clinical reports of bacteria developing resistance to Furacin. Moreover, it has been demonstrated that bacteria that have developed resistance to the sulphonamides and antibiotics remain as susceptible to Furacin as the initial unresistant strains. The literature on these products is now so considerable as to make it impracticable to append a list of references testifying to its therapeutic

usefulness, but we are enclosing, for your information, copies of our descriptive literature, which we should be pleased to make freely available to any of your readers who are interested.

LONDON, S.E.5

FOR MENLEY & JAMES, LTD., T. C. BLACK, Director.

# Onward from Galen

A CURRENT CAUSERIE

One hundred years and three days ago a considerable operation was performed under chloroform. An amount of 2 lb. 8 oz. was used before the desired degree of anæsthesia was attained. The method was fasten sponges well saturated with chloroform to the end of staffs and hold them to the patient's nose, and in the process several were broken. The obstreperous patient was, however, not a conscientious objector to the abolition of pain but in fact a tiger at Hull, who "seemed disposed in this unceremonious way to disappoint all expectations of success." For some time previously the tiger had experienced great torture by the growth of its claws into the fleshy part of its foot. Even when the anæsthetic took effect the task was, in the words of a contemporary report, "far from pleasant." Ropes were got round the animal's neck, and his head was drawn close to the bars of the den, the animal being kept down to prevent the struggles that were expected. Smaller ropes were slipped over each of the animal's paws, "which not only rendered him helpless, but were of use in pulling each paw, as wanted, under the bars to have the claws clipped." The operation was performed by a veterinary surgeon, but "several medical gentlemen were present to advise and assist."

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PRESENT and future trends in the pharmaceutical industry in U.S.A. and Canada were the subject of comment or prediction at the mid-year meeting of the American Pharmaceutical Manufacturers' Association in New York, on December 8, 1953. Mr. John B. Frosst (vice-president of Charles E. Frosst & Co., Montreal), for example, implied that the industry provided one of the many "opportunities" with which Canada was full. Canadian drug stores there was a trend to emulate their American counterparts by selling goods other than drugs and cosmetics. At present, however, the diversity of products sold was not so great as in the U.S.A. Canadian druggists seemed less dependent on national advertising and, because they did more "store promoting" of products, they got a better percentage profit. A highly competitive field for pharmaceutical products existed in Canada since in addition to indigenous companies there were branch houses of U.S.A., British, French and Swiss companies, and agents of German, Italian, and Scandinavian manufacturers. Factors that have contributed to making pharmaceutical manufacturing a "billion dollar industry" in the United States, were, said Dr. Herman C. Nolen (executive vicepresident of McKesson & Robbins, Inc., New York) (1) rapid growth of U.S. population; (2) high standard of health; (3) increased consumer income; (4) development of health, sickness, and hospital plans; (5) development of new pharmaceutical specialities; and (6) influence of military service on consumer health habits. A new method of promotion, consumer advertising, was now being tried extensively by a number of manufacturers "with apparent success." Changes in retailers' needs were influencing promotion methods. Retailers were demanding faster and more frequent delivery, more product information, price protection for stocks, less duplication of products, etc. During the past few years the expansion of the pharmaceutical industry had reached a stage of intense competition. Questionable competitive practices had, unfortunately, been introduced. They included unsound price cutting, the introduction of free goods, the increasing use of "deals' similar to those used in proprietaries and toiletries, misuse of samples and delivery of goods from salesmen's cars.

# A MODERN COURSE OF PHOTOGRAPHIC STUDIES-3

By

H. BAINES, D.Sc., F.R.I.C., F.I.B.P., HON, F.R.P.S.

# SENSITOMETRY—PART I

ENSITOMETRY is the science concerned with the measurement of sensitivity of photographic materials, that is, with the quantitative effect of light action on photographic materials. By the photographic process, light energy is caused to produce black deposits of silver metal, and it is those two entities-light energy and blackness of deposit—which have to be correlated. The total amount of energy to which unit area of a plate is exposed varies with the intensity of light falling on it and on the time of action of the light. That is, exposure = intensity × time. Intensity of illumination is measured by comparison with the intensity of light falling on a surface at a certain distance from a standard source of illumination. The standard source was for many years a candle of defined composition, dimensions and conditions of burning, and its luminous output was called one candle-power. Recently a new standard of about the same magnitude (the candela) has been internationally adopted, but for photometric work calibrated incandescent filament lamps, run under controlled conditions, are invariably used.

The intensity of illumination of a surface decreases with distance of the surface from the light source, but since, at distances 1:2:3:4, etc., a cone of light would cover areas 1:4:9:16, etc., the intensity of illumination varies inversely as the *square* of the distance from the light source (Fig. 1). The relationship is known as the "inverse square"

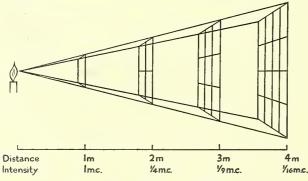


Fig. 1. The inverse square law.

law. The unit of intensity of illumination is taken as that of a surface one metre from a source of one candle-power, and is called one metre-candle, Exposure may thus be measured in metre-candle-seconds,

# The Perfect Photograph

Now that we have a unit for measuring intensity of illumination, let us see how it can be applied to normal photographic procedure. Photography is normally practised with the object of producing as faithful a reproduction of a view as possible (apart, of course, from control work for pictorial effect). Black-and-white photography can represent a view only as a composition of light and shade—of "tone values." The tone values of the original view may be assessed visually, since the eye can distinguish the brightest highlight, the deepest shadow, the approximate middle tone and, indeed, a series of equally spaced tone values from the shadows to the highlight. The perfect photograph would be a print whose tone values were proportional to those of corresponding parts of the original view. Somewhat higher or lower contrast would be permissible, provided that the middle tone of the view were represented as the exact middle tone on the print and every other tone value represented in exact proportion. Thus if the tone values of a view are plotted against those of a print, a perfect print should give a straight-line relationship, though the slope of the straight line need not be exactly 45°: a higher or lower contrast may be permissible. Conversely a perfect negative (though that is seldom, if ever, required), is one whose degrees of blackness, judged to be equal by the eye, are proportional to the tone values of the view. To discover how well a negative material behaves photographically, the two functions must be measured and plotted one against the other.

# Tone Values in Terms of Intensity

A series of equally spaced tone values has been defined as a series of brightnesses that are judged by the eye to be equally spaced. If the "brightness" of such a series is measured in terms of metre-candles, it is found that the increments are by no means equal. (That is not surprisingone would not expect the eye to assess the difference between 1 and 2 metre-candles as equal to that between 99 and 100 metre-candles.) Differences in brightness appear to be equal to the eye when the *ratio* of intensities is constant. Thus a series 1, 2, 3, 4, 5 metre-candles would appear to have gradually diminishing increments, but a series 1, 2, 4, 8, 16 would appear to have equal differences; so would a series 1, 10, 100, 1,000, 10,000 metre-candles. A series of values in which each member bears the same ratio to its neighbour is a logarithmic series. Logarithms are normally expressed "to base 10," thus the last series may be rewritten 10°, 10¹, 10², 10³, 10⁴, the logs, of the numbers being respectively 0, 1, 2, 3, 4, and any intermediate numbers have corresponding intermediate logs.

Tone values must therefore be measured in terms of "log-intensity." Similarly the degrees of blackness of the negative must be measured and expressed in "log-intensity" units, rather than intensity units. The light-stopping power of a deposit may be measured as opacity (O), or the ratio of incident intensity to transmitted intensity. O=I (inc.) / I (trans.). But if a series of opacities are illuminated by the same incident intensity, equal differences in opacity represent equal differences in transmitted intensity. We are therefore not interested in opacity when considering tone value reproduction, but in another function, density, D, which is the logarithm of opacity, or D=log [I(inc.) / I(trans.)]. Equal differences in density then correspond to equal differences in "log-intensity."

# The Characteristic Curve

In order to define how a negative material functions when exposed to a certain view, tone values of the view (log. I values) must be plotted against corresponding densities of the negative. But the *complete* story of photographic behaviour may be given by substituting exposure (I.t) for intensity I, thus plotting log. E, or log. It against D. Clearly there are more convenient ways of measuring exposure than measuring intensities falling on a plate from

different portions of a view, and multiplying them by the camera-exposure time. Machines called sensitometers are available that give a series of increasing calibrated exposures to adjacent portions of a strip of sensitive material. The time of exposure may be constant, and the intensity varied, as occurs during a camera exposure. That is called an intensity-scale exposure, and it can be realised by the use of an optical step-wedge. Alternatively intensity may be constant, and some device such as a rotating-sector wheel (Fig. 2) may be employed to give a time-scale expo-



Fig. 2. Sector-wheel for time-scale sensitometric exposure.

sure. Specialised processing technique must be used, so as to ensure more reproducible results than normal dish or tank methods give, and finally a densitometer is required that is an optical instrument with which the densities of the developed areas can be measured. Plotting the densities against the logs. of the corresponding exposures gives a 'characteristic" or "H. and D." curve. A typical characteristic curve of a negative material is illustrated in Fig. 3. By varying conditions of exposure, and of processing, one can obtain a whole family of characteristic curves from any one material, so that a single characteristic curve is characteristic not of the material alone, but of the system (material, exposure and processing conditions). In order to provide evidence on the behaviour of a material in practical use, it is necessary in sensitometric practice to adjust exposure and development conditions to be about the average of those occurring in practice. Thus for materials such as rollfilms, the colour of the exposing light must approximate to that of daylight, the time of exposure should be a fraction of a second, and development should be standardised at that normally given in roll-film processing.

## Characteristic Curve and its Interpretation

The characteristic curve of a negative material (Fig. 3) consists of two curved sections AB and CD, joined by a straight The section AB is usually called the foot of line section BC. the curve, an ill-defined lower extremity near A often being referred to as the "toe," while the portion CD is named, with a happy disregard of anatomy, the "shoulder." The total log. E range covered by a typical negative characteristic curve is seen to be of the order of log. E=4. This means that the material records by differential density over an exposure range of 1:10,000 (since log. 10,000=4), which is far in excess of the exposure range of any normal view. In an outside view, the brightest highlight may be one or two hundred times as bright as the deepest shadow, but when the view is imaged on to the film or plate, light scatter and lens flare spread some of the highlight brightness over the shadow areas, greatly reducing the brightness range and bringing the ranges of different views much closer together. The highlights of the camera image of a normal outdoor scene are about thirty times as bright as the deepest shadow, i.e., the "exposure range" when photographing a typical sunlit outdoor view is 30:1. One of the advantages of the "log. E" scale is that a constant ratio is represented by a constant length of the axis, and a range of about 30:1 may be represented by a length 1.5 (since log. 30=1.4771). That is to say the exposure difference received by different parts of the material during a camera exposure, due to differences in brightness of different parts

of the subject is, in the case of a normal outside view, represented by a section of the log. E axis of length 1.5. If one gives a series of increasing camera exposures, they will be represented by shifting that section along the log. E axis to the right. The range of densities then obtained must correspond to the position of the 1.5 intercept in a manner defined by the characteristic curve. Thus if the exposure were so small that the section lay completely to the left of point A, no density at all would result. If it is partly to the right and partly to the left of point A, only the highlights would show differentiation, and if the " blocked-up under-exposed negative were printed, shadows would result. As soon as the section has moved to the right so that it is completely clear of point A, prints may be obtained that cannot be improved by any further negative exposure. That exposure is the first to give an excellent print, and the position of the section at the "first excellent print" position is shown in Fig. 3. If the exposure continues to be increased so that the section moves just to the right of point B, then the densities all lie on the straight-line portion of the characteristic curve, and for the first time a "perfect negative," as previously defined, is obtained. The earlier sensitometricians advocated exposing so that all the densities showed a straight-line relation with log. E, and indeed they labelled the foot of the curve the "under-exposure" region, the straight line portion the

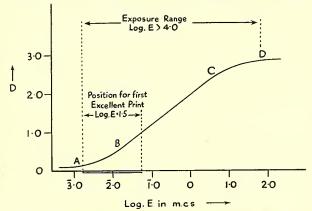


Fig. 3. Characteristic curve of typical fast negative material.

"correct exposure" region, and the shoulder the "overexposure" region. Those labels would be true if the object were solely the production of a negative showing perfect tone reproduction, but so much distortion is inevitably introduced in the positive printing process (as will be explained later), that perfection at the negative stage has no real significance. In fact if the exposure to give first excellent print is used, the curvature of the foot of the characteristic curve tends to counterbalance rather than to augment the distortion introduced at the printing stage. If the series of increasing camera exposures is continued, negatives of increasing average density are obtained, but excellent prints can still be produced from them until the exposure is such that the section just reaches point D, after which highlights cease to show detail. Excellent prints can therefore be obtained from exposures at which the section has just passed point A till it just reaches point D. The distance through which the section has travelled on the log. E axis is therefore the distance between A and D, minus the length of the section (the former being the exposure latitude of the material, and the latter the exposure range of the subject). Typical values are respectively log. E=4, and log. E=1.5. The difference (log. E=2.5) represents a ratio of 300:1, and it means that, if a determination is made of the very minimum camera exposure to give an excellent print, with a normal outdoor view on a normal negative material, even giving it 300 times that camera exposure still results in an excellent print. That is demonstrated by the two results shown in Fig. 4, where this ratio is exceeded.





Fig. 4. Left: Print from negative exposed at 1/100 second, f/32 (first excellent print), Right: Print from negative exposed at 1/5 second, f/5-6—an exposure 640 times that of the left-hand picture.

Since the characteristic curve is a quantitative graphical record of the photographic properties of a material when exposed and developed under certain defined conditions, it should be possible to deduce from the curve quantitative measurements of those properties that are qualitatively well known to the photographer. Some properties are easily measured in a manner upon which there is general agreement. Others have given rise to considerable controversy.

Fog: Every emulsion contains a proportion of grains that are developable without exposure to light. Hence development of an unexposed material gives rise to a measurable density known as "fog" or "veil." The amount is usually low, and has a negligible effect on photographic properties. The log. E values to the left of A have been insufficient to produce any added density, and hence the density value should be the same as that of an unexposed piece of material, and is a measure of the fog of the material. In sensitometric practice it is usual to mask off a small area so that it receives no exposure, and the density of that area is taken as a measure of fog.

CONTRAST: By the term contrast the photographer means the rate at which density increases with increase in tone value of portions of a view, or in other words, how density increases with increase in log. E. Clearly, on the characteristic curve, a high rate of increase of density with log. E will be represented by a high slope, and vice versa. One can measure the slope of a straight line portion by taking two points on the line, and dividing the density difference by the log. E difference, and that value, when applied to the straight-line portion of the curve is known as the  $\gamma$  (gamma)

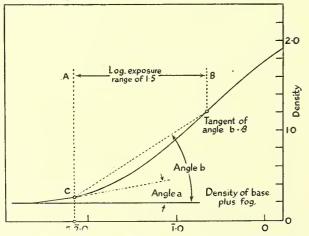


Fig. 5. Fractional gradient criterion (reproduced from B.S. 1380:1947, by courtesy of the British Standards Institution).

value. A straight-line portion at  $45^{\circ}$  has thus a  $\gamma$  of 1.0. Gamma is an accurate definition of the contrast of a negative only if all the densities of the negative lie on the straight-line portion of the curve, and most negatives utilise densities of the foot of the curve. The average slope of most negatives is therefore less than the  $\gamma$  of the material, though the two values usually show a rough correlation. The  $\gamma$ , determined from the characteristic curve, is thus an indication of the contrast which the material will give.

SPEED: The minimum exposure which a material requires to give a desired result is a measure of the photographic "speed" or sensitivity of the material. As the desired result is presumably an excellent print, the exposure giving the first excellent print can be taken as a speed criterion. We have seen that this exposure is one in which the density of the deepest shadow lies just to the right of point A. If, therefore, we can define point A, we have a measure of "speed." Now A is a point on the foot of the characteristic curve at which densities are just differentiated. It therefore has a minimum useful slope, and it is definitely higher than fog density. A great deal of controversy has arisen in the past over the definition of an appropriate point in the toe of the curve. In the original H. and D. system the point at which the straight-line portion, when produced, intersected the log. E axis was used, while the Scheiner system used the ill-defined threshold point at which the horizontal line just commenced to rise. A much more satisfactory method was a point with a fixed density (usually 0.1) above fog. That point has less fundamental significance than a point with a definite minimum slope (usually 0.2), but that in turn has less significance than a point whose slope is a definite fraction (0.3) of the average slope of a negative giving first excellent print. That is called the "fractional gradient" criterion of speed, and is the basis of speed determination by British and American standards. Speed is computed as 1/E, "where E is the exposure (expressed in metrecandle-seconds) corresponding to the point on the densitylog<sub>10</sub> exposure-curve at which the gradient (a) is 0.3 times the average gradient (β) for a log.10 exposure range of 1.50 of which E is the minimum exposure." This is illustrated in Fig. 5. From this speed criterion, one may calculate an "exposure index," which may be used in conjunction with exposure tables for determining outdoor daylight exposures under a wide variety of conditions.

EXPOSURE LATITUDE: It has already been shown that exposure latitude may be measured by the log. E separation between the points of minimum useful gradient at the foot and at the shoulder of the curve, i.e., by the horizontal distance between A and D (Fig. 3). There is no agreed method of determining these points, and they are usually taken as those points on the curve with a gradient of 0.2.

# A Chartered Accountant gives answers to

# ANY BUSINESS QUESTIONS?

Can you give me any guidance and advice on the formation of a private limited company or a partnership?

THERE are many textbooks on the subject of formation of companies. The following may be found useful:—
"Converting a Business into a Private Company," by Stanley Borrie. (Jordan & Sons, Ltd.)
Palmer's "Private Companies." (Stevens & Sons, Ltd.)
Set forms of memorandum and articles may be obtained from law stationers. Many intricacies are involved, and the subscriber would be well advised to seek professional assistance. A partnership is primarily a matter of agreement between the parties, and deficiencies in that agreement in the event of dispute may need to be made good by reference to the Partnership Act, 1890, the statute governing the main principles of the law of partnership. A perusal of that Act would be rewarding.

My wife acts as an assistant in my retail business and I have been paying her salary with other cash expenses out of takings before the latter are banked. The Inspector of Taxes has now informed me that he can no longer allow her salary as a deduction against my profits, as it was not a recorded item.

It was held by the Court as long ago as 1927 that, where there was no satisfactory evidence of payment, the appellant was not entitled to any deduction. To obtain allowance of an item, though the recording is prima facie evidence of its payment, it may be required to show as well that the services were truly rendered and the salary was actually paid and not unreasonable. If the Inspector is insistent that no deduction is permissible, as the item was not recorded, or was inadequately recorded, he may obtain support from the decision referred to above.

Referring to the fifth question dealt with in the issue of August 15, I am not clear if you include a partner's salary in the category of drawings on which you say no P.A.Y.E. need be deducted. If tax is not deducted as and when paid, when is liability worked out?

No P.A.Y.E. need be deducted from partners' salarics. They are an adjustment of the agreed shares of profit (or loss) by reference to the value set upon the respective labours of the partners in the business. If a loss is suffered or insufficient profit is made to cover salaries, adjustment is in effect made through capital accounts. The Inland Revenue raises a joint assessment on the firm and is concerned with the net revenue results before salaries and like items of partners are charged. To arrive, however, at the allocation of the assessment amongst the partners, salaries, etc., must be deducted and then added back to the computed share of each partner. But it is salaries, etc., in the year of assessment, or in practice the business year ending in the year of assessment, that are applicable.

Is there any formula to apply to arrive at the time reasonably allowed for redceming capital in buying a business, having regard to price paid for the business, net profit obtainable, interest on capital invested, etc.?

No general formula for determining the period to be allowed for the redemption of capital sunk into the purchase of a business can be offered. Apart from the nature of the business acquired and the particular basis on which the assets have been taken over, the personal position of the

buyer must be considered.

A division should be made between goodwill and other assets taken over. The cost of fixed assets is recoverable by depreciation normally written off according to percentages differing with the type of asset. The value of goodwill, however, is in fact an equivalent of an agreed number of years' purchase of super profits arrived at by deducting from average profits salaries of working proprietors and interest on capital invested at a rate appropriate to the concern, including risk. The number of years taken for computation may differ from case to case and depend on negotiation between the parties. Assuming a five years' purchase and the maintenance of the business at the same average level, money spent in acquisition of such super-profits would be recovered in five years—with the modification that allowance must also be made for tax liabilities arising! For example, when income, inclusive of salary (notional or actually drawn), and interest on capital are high enough to make the purchaser liable in respect of super-profits at the full standard rate, it will take approximately twice as long to redeem the goodwill portion. Liability to surtax would still further protract that period.

I propose making a lease between myself, as landlord of the premiscs (address given) and the tenants of the same (name of firm given). To provide for the the same (name of firm given), 10 provide for the contingency of rising property maintenance, could I set a rent in the Lease for, say, £10 per week, but only for the time being draw, say, £5 per week rent from the company, then later, but only if necessary, charge the full rent provided in the Lease? Would my tax liability for rent received be decided by actual rent received or by the rest retail in the Lease? received or by the rent stated in the Lease?

It would be in order for parties to agree to an alteration of a term in an agreement already entered into, and correspondence between them should be adequate evidence thereof. The rent of £10 per week could thus be provisionally reduced as required. On the other hand, the agreement might be drafted to give the right of option on notice in writing to increase the rental from the lower figure stipulated. Presumably it is not desired that the tenants themselves resulted to the contraction of the contractio selves should be responsible for property maintenance. Liability to income tax will have reference to modifications and variations of the original agreement drawn up.

According to a Press statement, a bonus issue of shares has been declared on ordinary shares of a company in which I have a holding. The market price has since risen. Can I immediately dispose of my increased holding? What is my tax position?

THE subscriber has no doubt come across the Press statement of the recommendation only of the directors of the company. Any necessary resolutions must first be passed by a meeting of the company and a date fixed for the new issue. A sale before such date would lose the right to the bonus. The directors usually give the date from which the bonus issue ranks for dividend. It should not be overlooked that the market-price already reflects the future dividend possibilities on the whole issue, including the bonus, but that such market price usually falls on the actual issue of the bonus..

The capital distribution of bonus shares is issued without deduction of tax. In any case, taxation on its profits is the company's liability, and tax deducted from a dividend is a recoupment only. A tax-free dividend is in effect, therefore, a larger dividend on a comparable gross basis. Since the profits have been capitalised, the recipient of bonus shares

is not liable to surtax either.

The tenancy agreement of our premises expired and we were forced to seek new premises, involving us in legal expenses of the new agreement as well as the cost of removal. We are aware that the Inspector of Taxes pays close attention to items of legal expenditure, but we do not anticipate any reason why any of the costs incurred by us should be disallowed. Do you agree!

On a strict interpretation, the expenses of removing business premises are not allowable deductions. However, the Inland Revenue adopts a reasonably lenient attitude and all removal expenses are allowed unless, of course, the removal is on account of a business expansion, etc. In that event, the expenses to be allowed would be considered on their merits and that part referable to the expansion, etc., disallowed. Legal expenses in acquiring a lease are capital expenditure and not deductable, but again the tax authorities will now permit them on the renewal of leases, etc., for less than fifty years. Removing expenses of a particular asset not allowed can be added to the cost of that asset, so increasing allowances for wear and tear.

# Action of Drugs on NERVE ENDINGS

Abstract of an address by Dr. D. Whitteridge, F.R.S. (professor of physiology, Edinburgh University) before an evening meeting of the Pharmaceutical Society in Edinburgh

T is remarkable that a very large proportion of the afferent nerve endings in the body are specialised to transmit to the nervous system information about mechanical events in the body. It is seldom that it is wished to interfere with the action of those receptors, except to anæsthetise them. The next great group of endings are the chemoreceptors-endings which are specialised to detect an increase in CO2 and particularly a decrease in oxygen in the blood. Those lie intercellularly in special cells of the carotid body and aortic body. The endings are seldom wilfully anæsthetised, but they may be stimulated deliberately as in the injection of lobeline to start the new-born child to breathe. Small doses of cyanide intravenously can be used to measure the circulation time by their arrival at the carotid body. The resulting stimulation of the chemoreceptor cells gives rise to a sudden gasp.

That group of endings may grade into endings which are excited by inhaled chemical irritants and produce cough, and finally there is the great class of pain-producing endings. It is frequently wished to paralyse them, sometimes it is wished to excite, as in the use of rubefacients.

# Brain Signals

It has been known since Adrian's pioneer work that all nerve impulses signal information to the brain by setting up impulses constant in size. In a record of the nerve impulses from a single stretch receptor in the lung, it is easy to see that the frequency of impulses increases with an increase in the volume of air in the lung-the two are linearly related. The odd fact that struck me ten years ago was that those stretch endings can be made to fire up to twice as fast for the same volume of air in the chest, if they are exposed to the volatile anæsthetics. At the time I was interested in rapid shallow breathing due to blast and to phosgene. When I heard that a new anæsthetic, trichlorethylene, produced rapid and shallow breathing, I tried it out on the stretch endings of the lung, and obtained a remarkable sensitisation. However, that was not the answer to the original problem. All the volatile anæsthetics tried, sensitise stretch endings but only trichlorethylene consistently causes rapid shallow breathing. It soon became clear that the sensitisation of stretch endings merely decreased the depth of breathing, often only temporarily. The increase in rate seems to be due to other mechanisms still very obscure - probably sensitisation of deflation endings. However, that effect is not confined to lung stretch receptors, and I obtained a few results which suggested that the same thing applied to arterial pressure receptors. If those fire faster at the same arterial pressure, the vasomotor centre will be deceived, since the information it receives indicates a blood pressure about 30 per cent, higher than in fact it is. It takes the usual steps to lower the blood pressure, slows up the heart and opens up the peripheral arteries so that the blood runs away faster into the capillaries. Those processes occur at the beginning of general anæsthesia with volatile anæsthetics and are usually prevented by giving atropine. The current work of my colleagues and myself suggests that that drop in heart rate may be partly due to a peripheral effect of the volatile anæsthetics, acting on the arterial pressure receptors.

Bernard Katz found that the muscle-spindle acts like a microphone which converts sound waves into electrical waves of the same frequency. The spindle converts stretch into an electrical potential difference which follows closely the mechanical stretch. It is that potential difference which excites the nerve fibre which is intimately involved in the

nerve ending. A good deal is known of the excitation of nerve fibres by applying electrical currents to them. Some nerves respond only by an impulse at make and perhaps at break; they are said to accommodate quickly. Others go on firing as long as the current lasts. In this group, the stronger the current, the higher the rate of firing. The rate depends on the time taken for recovery after the first impulse, usually very short, the time for the next new-born impulse to grow up into a full-blown impulse, the rate of adaptation to the stimulus and the accumulating after-effects of a series of impulses.

Thus, if it is assumed that the microphonic effect of the ending converting a mechanical stimulus into an electrical one stays constant, then the rate of discharge of an ending can be increased by increasing the after-effects of a series of stimuli. It is probably the mode of action of veratrine and its allies which have that effect on nerve and on muscle and increase the discharge of pulmonary stretch endings and probably some vascular endings. It is also possible to convert a quickly adapting receptor such as a hair movement receptor into a slowly adapting or even a spontaneously discharging receptor by removing Ca + + ions.

It seems likely that some agents can cause an increase in the size of the electrical response produced by a constant physical stimulus. It is the best explanation for the action of volatile anæsthetics on stretch and vascular endings, the problem with which I started.

The chemoreceptors raise a number of problems. Although hexamethonium will block the stimulating effect of lobeline on chemoreceptors, it has no effect on the action of oxygen lack and cyanide on the same fibres. The obvious explanation is that oxygen lack and cyanide act on the fine terminal fibres inside a cell of the carotid body, whereas lobeline and hexamethonium act on the nerve fibre after it has left the cell. However, it is found that procaine blocks the action of phenyldiguanide on presumably the same endings but does not affect the action of oxygen lack, cyanide, or lobeline, and that presents a difficulty that will not be resolved till it is possible to lead from a single chemoreceptor fibre.

## Pain Fibres

The mode of action of pain fibres is very obscure. Gasser has just shown that they are even smaller than we thought—many are as small as  $0.1\mu$ , and they are difficult to handle and impossible to isolate. Presumably parts of their terminal network are specialised to be sensitive to chemical substances such as histamine. If a part of the fibre was particularly sensitive to and depolarised by such a substance it could presumably initiate an impulse directly at that point. Little is known of the reasons why some chemical substances stimulate some nerve fibres and not others.

# VETERINARY ABSTRACT

#### NITROFURAZONE IN CHICKS

GORDON, Chubb & Stacey (Veterinary Record, 1953. 65, 575) carried out experiments to provide information on the toxic effect, if any, on the young growing chick when fed for a prolonged period on a level of 0·011 per cent. of nitrofurazone. From the results it was concluded that that level, which was twice the concentration recommended for the coccidiostatic continuous feeding of chicks, exerted no significant effect on the rate of body-weight gain or on subsequent egg production, when fed continuously for sixteen weeks. Some reduction in hatchability appears to have occurred, although that was probably not significant.

# A Suggested Basis for awarding the FELLOWSHIP

of the Pharmaceutical Society

BY E. R. MATTHEWS (Senior Lecturer in Pharmaceutics, Portsmouth Municipal College)

HOW to make the Fellowship of the Pharmaceutical Society a useful and respected diploma yet not beyond the reach of any member is a question not yet answered. Few potential Fellows are able to complete a research programme or to attend a post-graduate course of advanced study. One answer is in a system of "endorsement subjects" on similar lines to that used in the electrical engineering profession. When, say, three "endorsement subjects" had been gained, the Fellowship might be awarded on an essay (or "dissertation," as the regulations would more probably call it).

# Endorsement Subject

Bitter experience—or sometimes an organised course of study—gives a pharmacist in general practice insight into such subjects as management studies; general retail practice; hospital pharmaceutical practice; marketing and distribution of pharmaceutical products; the history of medicine or pharmacy; pharmacology; microbiology; pharmaceutical chemistry. It seems only reasonable that the Pharmaceutical Society should define a course of training and hold some test of knowledge and experience in those subjects, and that pharmacists successful therein should have the fact endorsed upon their membership certificates. Indeed the Council recognised the necessity for such a scheme when it instituted diplomas in pharmaceutical and biochemical analysis. But those good beginnings led nowhere and have now fallen into disrepute, or at least into desuetude.

Endorsement subjects, of which the above list might well be a nucleus, should have a prestige and practical utility of their own. But instead of being dead-ends they should also lead to the higher, broader award of the Fellowship of the Pharmaceutical Society. From what is so far known of the proposed regulations for the award of the Fellowship, few pharmacists would feel justified in making the effort to attain it. If, however, the Fellowship were attainable by steps, each recognised and worth while in itself, many would be encouraged to set out for the honour, feeling that, whether or not they proceeded to the full Fellowship, they would get a label showing their special artifuldes.

Endorsement subjects should be of practical utility and should be humanistic as well as technical in character. They should include the sort of pharmaceutical problems to which the newly qualified, even when sickened of academic study, might turn as a hobby; or which form part of the pharmacists' daily duties. Examinations should be planned to test experience and outlook, avoiding long practical examinations that are really only tests of endurance. Decentralisation of the examination is also desirable, so as to reduce expense and inconvenience to candidates. Perhaps arrangements could be made for individual candidates to answer papers in their home town, invigilated by the chairman of their local Branch.

Sectionalisation of the examination for the Fellowship would adapt itself to and not cramp the movements of pharmacists changing their appointments to gain wider experience. In advanced pharmaceutical studies technology must always take prior place, but sectionalisation would allow the inclusion of commercial and humanist subjects—a great advantage, since most pharmacists must deal with people as much as with products. The present holders of the diploma in biochemical analysis could well be found a place in a system of endorsement subjects.

#### The Dissertation

The Fellowship should never be inferior to a university "first degree," as the old Pharmaceutical Chemist qualification tended to become: it should be more nearly comparable to a "higher degree," such as M.Sc. Clearly, therefore, something more than the collection of endorsement subjects is required as the final step to the award. To deserve a Fellowship a candidate should show the connecting thread of reasoning and inquiry that has led him to study the subjects chosen. An essay, also assessing recent advances in the field, and written at leisure, would best accomplish that purpose, and upon such a dissertation the Fellowship might well be awarded, so soon as the necessary number of Endorsement Subjects had been gained.

# Assistance from Colleges

For at least half of the subjects approved by the Council as endorsement subjects no attendance at a recognised course should be necessary. Technologies such as microbiology and pharmacology would obviously need organised courses only to be provided at few centres. For all subjects, however, pharmacists should try to keep in touch, by both correspondence and visits, with an experienced teacher able to guide their studies and check their progress. Many members of the Society already keep in touch with their old school of pharmacy for purely social reasons, and a regularisation of that good custom would be burdensome to none. Since lecturers and demonstrators in pharmaceutics are sometimes accused of being academic and impractical in the standards and methods they require of their students, those professional contacts with their students after qualification would also ensure that that accusation was never true. Post-graduate students are a great help to teachers for it is an established fact that the best education works both ways.

To be of any use at all, the Fellowship of the Pharmaceutical Society must, as already argued, become comparable in status with university "higher degrees," but that objective will not be attained by imitating those awards. The Society's Fellowship must develop its own character and utility. Post-graduate training and research are normal paths to a higher degree, and can be paths to the F.P.S. also, but there must be the wider, more human and more technical approaches, such as that which the system outlined might provide.

#### Open to All

It is just as important that members of the Pharmaceutical Society prepared to work for it should have equal chances of attaining the Fellowship as that the award should be restricted to the best members. Residence away from a university should not be an obstacle, as it might well become without some special arrangements. The regulations governing the Fellowship should recognise that many pharmacists work far from an academic centre, and that the most useful pharmacist is not necessarily an academic pharmacist.

The wide choice of subjects required by the non-academic members and provided by a system of endorsement subjects to be added, as gained, to the membership diploma, and forming steps to the Fellowship, would provide that distinctive character the pharmaceutical higher award needs in order to gain an esteem comparable to that of a university higher degree.

# THE BRITISH PHARMACOPŒIA 1953

Abstracts of lectures in a series given at evening meetings of the Pharmaceutical Society in London by members of the Pharmacopæia Commission

# IV. APPLIED PHARMACOLOGY

BY A. D. MACDONALD, M.D., M.A., M.B., Ch.B. (professor of pharmacology, Manchester University).

HEN there is doubt about a prima facic case for an approved name the nomenclature committee refers the matter to pharmacologists. I feel that the award of an approved name should be conditional on the new drug really having made some definite therapeutic advance.

Some deletions from the British Pharmacopæia, 1953, are of drugs that have failed to fulfil the promise of their youth and have never become established: ethylene is one. Some have proved occasionally dangerous, such as aconite, amidopyrine and sulphonal. Compound preparations have been dealt with severely. The purgatives, especially the more drastic ones like colocynth, have been cut.

The deletion of diamorphine is, in a sense, a political deletion, for there is no problem of any magnitude in dia-

morphine addiction in Britain.

A large proportion of the additions is taken up by new preparations of established drugs-capsules and tablets, injections and implants. With regard to new drugs mention may be made of aureomycin (chlortetracycline), an established wide-spectrum antibiotic active by mouth; cyanocobalamin, the hæmopoietic principle, 0.1 mgm. of which may sustain a pernicious anæmia patient for three weeks; globin zinc insulin, which may well lose its place to one of the new suspensions; methadone, a synthetic analgesic related to morphine, unpopular with ambulant patients but often effective in the bed-ridden; methoin, a relation of phenytoin, for which certain advantages are claimed in the treatment of major epilepsy; testosterone, which gives a somewhat belated additional recognition to the possible importance of androgen; troxidone (tridone) which is often successful in petit mal; and sterilised surgical catgut (that breaks new ground as a B.P. monograph). Shall we in future extend to surgical dressings? The number of compound preparations is now reduced to sixteen.

The introduction of "single" and "maintenance" doses has been extended by the recommended "loading" dose and advice as to the intervals at which "maintenance" doses should be administered. That is important where resistance is rapidly developed. New dosage forms are

recognised for capsules and implants.

When a drug is applied for its local action the B.P. does not usually indicate the appropriate concentration or range of concentrations. It is perhaps unfortunate to specify an emetic dose for copper and zinc sulphates instead of an appropriate concentration which will safely produce the desired degree of gastric irritation. The dosage details in some cases, e.g., ethyl biscoumacetate, "0·15-1·0 gm. daily, according to the prothrombin content of the blood," almost suggest that a further extension of such information to cover uses and speed and duration of actions should follow.

Decisions about what to omit and what to include are often difficult. What barbiturates should be included? The group is substantially represented. The pharmacology committee thought pentobarbitone a better drug than amylobarbitone and butobarbitone. Similarly in the case of the antihistamine group, the pharmacologists thought mepyramine the best of the short-acting and promethazine best of the long-lasting drugs. They condemned diphen-hydramine because of the drowsiness, or worse, it provokes, and for the treatment of motion sickness preferred hyoscine to dimenhydrinate. At the time of making that selection—some four years ago—experience of chlorcyclizine and phenindamine was probably too limited for their in-

clusion. The bulk of the B.P. must be reasonably complete two years before its publication. When the pharmacology committee recommended mepyramine and promethazine for inclusion, it did not foresee the difficulties that have arisen because bulk supplies have not been made available.

Chloroquine and camoquin are often described as the antimalarials of choice today. Pentaquine is regarded as less toxic and more potent than pamaquin and should therefore replace it although it is still too toxic for routine regular use. Concerning sulphonamides I am not now clear why phthalyl-sulphathiazole was not included; perhaps it was thought to be too close in its action to succinylsulphathiazole. It is safer and more efficient than sulphaguanidine. Oral antibiotics may well displace this group of intestinal bacteriostats in a year or two.

# V. BIOLOGICAL SPECIFICATIONS

BY A. A. MILES, C.B.E., M.D., F.R.C.P.

(director, Lister Institute of Preventive Medicine, London) THE precision with which we must measure biological potency will depend mainly on the degree of control we have over the material (that applies to the drug and the test system) and upon how dangerous the drug is. When we can make only very imprecise measures of potency we are in no position to specify a drug that is poisonous in an overdose or endangers the patient in under-doses. Happily, in a number of substances whose biological activity we cannot measure very precisely over-dosage is not medically dangerous and we can ensure that the patient gets enough by giving plenty. This state of affairs would apply, for example, to some of the antitoxins and to the prophylactic used for the prevention of diphtheria. With other substances, like insulin, where an overdose may mean one kind of coma and an under-dose another kind, our methods must be precise enough to enable even the patient himself to administer insulin with confidence.

The response of the biological system to a drug is notoriously variable—as variable as the responses of different patients to the same drug. Accurate measures of potency cannot be made unless that variability is itself measured. That is done by introducing into the assay a standard stable preparation of the same drug and testing the unknown in parallel with it. Sometimes increased chemical knowledge renders biological standardisation superfluous. Vitamin A is now standardised spectrophotometrically and its biological standard has been discarded.

Unfortunately, for a number of pharmacopæial substances it has, for various reasons, hitherto proved impossible to make stable standards. We must then rely on estimates of activity made directly in the animal or other biological system. The reliability of that method depends on how far we can trust the biological system to remain reasonably constant. For example, we measure the potency of smallpox vaccine in the rabbit, and maintain the stock in such a way that the animals respond to smallpox vaccination in a similar manner throughout the years so that the rabbit-tested vaccine eventually put out for human use always has the same small range of potency. When testing vaccines we assume that in the test the right antibodies will be stimulated by the vaccine, Pertussis vaccine is tested by injecting it into mice and later giving an intracerebral dose of pertussis. A standard preparation of thrombin is being developed and therefore the assay of fibringen which depends upon thrombin may become more precise.

Other abstracts were given in the C. & D., 1953. II. 595.

# MEDICAL ABSTRACTS

# CORTISONE DISAPPOINTS IN RHEUMATOID TESTS

After conducting a trial of long-term cortisone treatment on twenty-seven patients suffering from rheumatoid disease and comparing their progress with that of twenty-seven patients not so treated, West and Newns (Lancet, 1953. 2. 1123) conclude that such therapy is not to be recommended. The average duration of treatment was nineteen months and cortisone acetate was given by mouth in doses ranging from 50 to 75 mgm. per day. The criteria adopted for assessing progress included whether joints stiffened on resting, ability for physical acts, erythrocyte sedimentation rate, and hæmoglobin concentration. By those standards the patients in the control group fared slightly better than those in the treated group but had a greater need for analgesics. The authors state that there is no theoretical reason why cortisone should have a curative effect in rheumatoid disease as no abnormality in corticosteroid metabolism had been confirmed in the disease. It is pointed out that the doses given correspond to twice the normal day-to-day secretion and that there is some evidence that administration of cortisone acetate at the rate of 50 mgm. daily will suppress the output of hydrocortisone-like steroids by the adrenal gland.

## **ROLE OF HEXAMETHONIUM**

WORK done to fix more precisely the value of hexamethonium salts in the treatment of hypertension is described by Harington and Rosenheim (Lancet, 1954. 1. 7). The drug was used on twenty-two patients with hypertensions of different origins. The authors conclude that the drug is best administered intravenously, as with oral administration there is the danger that a large quantity of the drug might suddenly be absorbed, while absorption from a site of injection takes place regularly. Furthermore the anion in the salt administered appears to be absorbed more completely from the intestine through hexamethontum itself, so that if the bromide is used there is a danger of bromism (the chloride and bitartrate are less readily absorbed than the bromide). Six patients died while undergoing treatment but the authors were satisfied that use of hexamethonium did in fact prolong the life of the patients. The relief of symptoms following hexamethonium treatment is not attributed only to the drug, as the treatment is associated with a prolonged period of rest, but administration of the drug had quickly dispersed such symptoms as persistent headaches, difficult breathing and visual failure. The authors conclude that the patients most suitable for treatment with hexamethonium are those with malignant by restression, with homesthese or with malignant hypertension, with hæmorrhages or exudates from the base of the eye, with failure of the left ventricle or with incapacitating headaches. It is pointed out that one of the advantages of the drug is that patients with renal impairment might benefit from its use whereas that condition was usually a contra-indication to other measures used against hypertension.

# ISONIAZID WITH STREPTOMYCIN OR PAS

RESULTS observed at the end of a three-month period show para amino-salicylic acid (sodium salt), 20 gm. daily, plus isoniazid, 200 mgm. daily, to be "a very effective combination of drugs clinically and bacteriologically" against pulmonary tuberculosis, according to the fifth report of the Tuberculosis Chemotherapy Trials Committee of the Medical Research Council, published recently (British Medical Journal, 1953. 2. 1005-14). That combination ranks with the most efficacious treatments so far studied (i.e., with streptomycin 1 gm. daily, plus isoniazid 200 mgm. daily, and with streptomycin 1 gm. daily, plus PAS sodium 20 gm. daily). The trials were conducted on about 400 patients selected by random allocation, the form of treatment being known only to the organisers. The chief comparison was between groups of patients on 1 gm. streptomycin daily plus 200 mgm. of izoniazid (referred to as SH treatment) and by groups on PAS sodium 20 gm. plus isoniazid 200 gm. (20 PH). At the end of three months the general condition had improved in 89 per cent. of the SH, and 88 per cent. of the PH patients. There were no statistical differences in

the average gain of weight between the patients of the two courses, in the falls in temperature and erythrocyte sedimentation rate, or in radiographic improvement. The proportion of patients bacteriologically inactive at a single examination was 65 per cent. for the SH series and 66 per cent. for the PH series. Bacillary resistance to isoniazid was found in two out of thirty-nine SH patients, against nil out of twenty-nine patients on the other course. Patients on streptomycin plus isoniazid showed a little more weight, and a higher proportion showed substantial radiographic improvement than on the PAS-plus-isoniazid course.

#### DEATH FROM PROCAINE PENICILLIN

A SUDDEN death following parenteral administration of procaine penicillin is reported by Bell (Lancet, 1954, 1. 13). The patient was a man of forty-seven years of age who was being treated for a chronic ulcer. He was first given crystalline penicillin at the rate of 100,000 units twice a day without ill effect. He was later given an intramuscular injection of 300,000 units of procaine penicillin G and within thirty seconds complained of pain and developed signs of pulmoniary ædema. In spite of his being given oxygen and intravenous nikethamide he died within a few minutes from the time of the procaine penicillin injection. The author points out that the patient had never before displayed any allergic phenomena or hypersensitivity to drugs and that the other ampoules in the box from which the fatal one was taken were used on other patients without harm. The possibility that the drug was inadvertently given intravenously instead of intramuscularly could not be ruled out. Brief notes on the pharmacology of penicillin, of procaine, and of procaine penicillin are given. It is suggested that the properties of procaine penicillin being a chemical compound differ from those of its constituents. When it is mixed with blood and examined microscopically insoluble particles of the drug are seen to be irregular in size and shape and their diameters range from 5 to 100\mu. It is possible that an aggregation of particles could form an embolus but the author favours a chemical rather than a physical explanation for the fatality. It is known that procaine in the blood-stream is rapidly rendered harmless by enzymes but it is suggested that the more stable procaine penicillin is not destroyed at the same rate: procaine produces its effect for about two hours, procaine penicillin for twenty-four hours.

#### ECHOES OF THE PAST

# ORIENTAL VEGETABLE CORDIAL

From The Morning Chronicle and London Advertiser, December 24, 1788.

THE Salubrious Powers of this CORDIAL have been long and universally acknowledged by the testimony of thousands. It is a pleasant, safe, and effectual remedy in Billious disorders, excruciating pain or spasm of the stomach and bowels, sickness, vomitting, flatulence, crudities, and acidity. It greatly increases 'the appetite, promotes digestion, and fortifies the stomach and bowels; thereby contributing to preserve the just equilibrium of the body. In faintings, lowness of spirits, nervous and hysterical atrophy, it is highly beneficial; by bracing the Nerves, cherishing the animal spirits, and giving vigour to the system. To these qualities must be attributed its having proved serviceable in Rheumatick cases; and, in attacks of the Gout, it has freed the Patient, when every effort of the Faculty has been tried in vain. It has also recently been found to possess the excellent virtue of preventing Sea Sickness.

The Cordial is sold in its greatest purity by the Patentee, B. CORNWELL, No. 13, Conduit-street, Hanover-square, London; in bottles of 10s. 6d. and 5s. each, or the quantity of six 5s, bottles in one, for 23s. 3d. with a Treatise, illustration.

trated with cases.

It is also sold by Mr. Randall, Royal Exchange; Mr. Wade, in Fleet-street; Messrs. Bayley and Lowe, Cockspur-street, Charing-Cross; and Messrs. Clarke's, Borough High-street. N.B. Care will be taken to forward the large bottles from

Conduit-street, securely packed, to families in the Country, Ireland, or foreign parts.

# TRADE REPORT

The prices given are those obtained by importers or manufacturers for bulk quantities or original packages. Various charges have to be added whereby values are in many instances augmented before wholesale dealers receive the goods into stock. Crude drugs and essential oils vary greatly in quality and higher prices are charged for selected qualities.

London, January 13: Although there was little extra activity in the market for Crude Drugs during the week a firm undertone was maintained. Particularly strong were the values of many Spices with the cwt. rates for African and Jamaican Ginger advanced by 2s. 6d.; Madras Turmeric for shipment by 7s. 6d.; Zanzibar Chillies by 10s. on the spot and by 5s. for shipment, whilst Cardamoms (Aleppy greens) were 1s. per 1b. dearer for shipment.

CASCARA SAGRADA was firm at origin with the recently advanced rates fully maintained; spot material has so far not responded to the new rates. BALSAM was marked up to 1s. 6d. per lb. at origin and as a result spot quotations were similarly dearer. Shippers of Portuguese Ergot indicated 15s. 6d. (c.i.f.) as the price per lb. at which supplies might be available. This represented a rise of 1s. 6d. on the previous week and buyers showed no interest. IPECACUANHA was a dull market and whilst the Nicaraguan value was held that of Colombian eased for shipment. There was also little interest in Indian Senna; only twenty bales of LEAVES and forty-six of PODS were shipped to the United Kingdom from Tuticorin last month.

Although imports of WITCH HAZEL extract still require a licence, the Board of Trade will now consider granting such licences to anyone needing supplies. Hitherto the whole allocation was granted to a few selected outlets for subsequent distribution. Efforts are being made to obtain the removal of import duty where this is charged on many crude drugs. It is pointed out that exporters at present are at a disadvantage when quoting to the Continent, etc., because once the duty has been paid there is no drawback when the goods are re-exported. The removal of duty is not sought on those crude drugs which are grown here or in the Commonwealth.

Demand in the PHARMACEUTICAL CHEMICALS section during the week showed some recovery. Following the announcement that HOMATROPINE and ATROPINE were being made synthetically (C. & D., January 9, p. 31), the makers have announced new schedules which are given below.

In ESSENTIAL OII S, ANISE and LEMONGRASS were firmer among the imported oils. The higher prices now asked for CARDAMOMS are reflected in advanced price for the English-distilled oil which at 325s. per lb. is 10s. up on previous rates. English-distilled CLOVE bud oil is being offered again at around 55s. per ib. Following several price reductions recently in the United States for CHENOPODIUM, spot material is now quoted substantially lower here.

# UNITED STATES DRUG AND CHEMICAL REPORT

NEW YORK, JANUARY 12: Stronger competition appears likely this year in the DRUG and FINE CHEMICALS field. inasmuch as supplies of practically every chemical compound appear adequate for consumer requirements. With

lower defence spending, producers may be forced to seek new civilian outlets for their products. GLYCERIN is expected to become scarcer although current prices are several cents below those of a few weeks ago.

On free offerings from overseas, Ceylon Papain dropped to \$2.85 per lb. (down 65 cents) and East African papain to \$3.25 (60 cents). Higher per lb, were liquid Styrax at 70 cents (up 2 cents); WITCH HAZEL LEAVES at 20 cents (2 cents); and Asafætida, 36 cents (4 cents). Stramonium Leaves were lower at 18 cents per lb. (1 cent) and Sumatra Benzoin at 29 cents (2 cents). An upturn in demand raised the natural Camphor price to 51 cents per lb. (up 3 cents).

Higher per lb. among ESSENTIAL OILS were PETITGRAIN at \$2.60 (20 cents); Turkish GERANIUM, \$5.70 (20 cents); CARAWAY, \$2.50 (50 cents); CHENOPODIUM, \$4.70 (20 cents); Dalmatian SAGE, \$7.55 (30 cents); BERGAMOT, \$11.00 (35 cents); and Spanish ROSEMARY, 60 cents (2 cents). Lower were GINGER at \$10.30 (down 20 cents) and Siberian PINE, \$2.40 (60 cents).

## Pharmaceutical Chemicals

ACETANILIDE. — 1-cwt. lots are now 2s.  $9\frac{1}{2}$ d. per lb. for crystals and 5-cwt., 2s.  $8\frac{1}{2}$ d. Powder is 1d. per lb. more.

ACETIC ACID.—B.P. Glacial is £102 for 1-ton and 115s. for 1-cwt. lots.

Atropine.—l-oz. rates for synthetic material are: Alkaloid, 30s. 4d.; Sulphate, 24s. 7d.; Hydrochloride, 32s. 3d.; Methylbromide, 25s. 1d.; Methylbromide, 25s. 1d.; Methylbrate, 34s. 1d. The price for 16-oz. lots is 6d, per oz. lower than the 1-oz. rates.

DEXTROSE. — Rates (per lb.) for B.P. material are as follow:—

MONOHYDRATE	1-4 cwt.   5-cwt.
1-lb. carton 7-lb. tin 14-lb. tin 28-lb. tin	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
In bulk	delivered.  £127 per ton, ex works or store, for minimum 1-ton lots.
ANHIDROUS	
7-lb. tin 14-lb. tin 28-lb. tin	Above, less $12\frac{1}{2}$ per
In bulk	cent. to wholesalers, delivered.

HOMATROPINE.—Current rates (per oz.) for 16-oz. lots of synthetic material are: Alkaloid. 49s.; hydrobromide, 29s. 9d.; hydrochloride, 42s.; Methylbromide,

40s. 6d.: SULPHATE, 41s. 6d. 1-oz, rates are 6d. per oz. higher in all cases.

Magnesium oxide, B.P. — Bulk rates are as follows:—LIGHT, 3s, 3d, per lb., and Heavy, 5s, 4d, per lb. for minimum 1-ton lots.

Magnesium trisilicate. — In 28-lb. packages the prices (per lb.) are now as follows:—28-lb., 4s. 9½d.; 1-cwt., 3s. 10d.; 5-cwt., 3s. 7d.; 1-ton, 3s. 1d.

MERCURY DERIVATIVES. — Quotations (per lb.) for 1-cwt. lots are: AMMONIATED, B.P., lump or powder, 20s. 3d.; Perchloride, B.P., powder, 18s. 5d.; Sub-chloride, B.P., (calomel), 20s. 9d.; Oxides, B.P.C., levigated, or yellow, B.P., 21s. 3d.

OLEIC ACID. — Price for B.P. is about 153s, per cwt.

PHENACETIN. — In 5-cwt. lots makers' price is now 7s, 2d. per lb., 1-cwt., 7s, 3d. PHENAZONE. — British material in 1-10-cwt. lots is 17s. per lb.; imported, from 13s, 9d.

PHENOL. — Basic prices for crystals in drums is 1s. 4d, per lb., and for LIQUID, B.P., 1s.  $3\frac{1}{4}$ d.

PHENYLACETIC ACID. — In 1-ton lots the price is now 5s. 6d. per lb.; 1-cwt., 6s. per lb. Perfumery grade, re-crystallised is from 8s. 6d. to 11s. 6d. per lb., as to quantity.

RIBOFLAVINE. — Price (per kilo) is £41 15s, for 1-kilo and £41 10s. for 100-kilos,

SODIUM PHOSPHATE. — B.P. powder is 125s, per cwt.

SODIUM SALICYLATE.—Rates are: 1-ton lots in bulk, 3s. 5d., per lb.; 5-cwt., 3s. 5½d.; 1-cwt., 3s. 6d.

Sparteine sulphate. — Price is 5s. 8d. per oz.

STRYCHNINE,—Current rates per oz. are given in the following table;—

SALT		nder oz.		oz oz		oz	ar	oz. id er
ALKALOID, B.P.C. BISULPHATE	s. 7 6	d. 10 8	s. 7 6	<i>d</i> . 8 6	s. 7 6	d. 6½ 4½	s. 7 6	d 5 3
HYDROCHLORIDE, B.P	7 7	5 5	7 7	3	7 7	$\frac{1\frac{1}{2}}{1\frac{1}{2}}$	7 7	0
PHOSPHATE B.P.C.	8	6 11	8	9	8	2½ 7½	8	6

SULPHACETAMIDE. — Quotations (per lb.) for 1-cwt. lots are 24s, 6d. The SODIUM DERIVATIVE is 30s.

SULPHAGUANIDINE. — Price per kilo for 500 kilos is 34s. 3d.

SULPHATHIAZOLE. — Price (per lb.) for 1-cwt. lots is 21s, 9d.

SULPHOCARBOLATES. — SODIUM PHENOL-SULPHONATE, B.P.C. (powder) is 7s. 4d. per lb. in 1-cwt. lots and ZINC, B.P.C., 7s. SULPHUR. — B.P. PRECIPITATED is £105

per ton, or £110 per ton for 1-cwt, lots.

TANNIC ACID. — Home-trade rates for levis B.P. is from 5s, per lb.

TARTARIC ACID. — Rates for the home trade are now as follows:—10-cwt. lots. 210s. per cwt.; 5-9-cwt., 212s.; 2-4-cwt., 214s.; 1-cwt., 215s.

TERPINEOL. — Prices of B.P. grade are from 3s. to 3s. 6d. per lb., as to quantity.

THYMOL.—Prices (per lb.) are 16s. 9d. for 28-lb. and 16s. 3d. for 1-cwt, lots.

ZINC CHLORIDE. — B.P.C., cake from 4s. 6d. to 4s. 10d. per lb.; sticks, from 5s. 10d. to 6s. 2d. per lb. Technical, about 140s. per cwt.

ZINC PEROXIDE. — Price (per 1b.) for 1-cwt. lots of B.P. is 5s. 3d.

#### Crude Drugs

AGAR.—Kobé No. 1 on the spot is from 15s. 3d. to 15s. 6d. per lb. as to quality. Forward, 12s. 9d., c.i.f., quoted for shipment of new crop.

ALOES.—Prime Cape is 165s. per cwt. on the spot. Shipment 156s., c.i.f., nominal. Curação is offered at 330s, on the spot and 260s. c.i.f. for shipment.

Balsams.—Quotations (per lb.) are: Canada: According to holder from 21s. to 22s, 6d., spot. Copaiba: Soluble Para, spot, 12s, 6d. Peru, 8s, 9d. in bond. Tolu (genuine as imported), now 21s., spot, and 20s. 6d., c.i.f.

BELLADONNA.—A parcel of Jugo-Slavian ROOT testing 0.44 per cent. is olfered at 1s. 9d. per lb. on the spot, duty paid; LEAVES are from 3s. per lb., as to test.

BENZOIN,—Sumatra block No. 1 on the spot is £35 per cwt., nominal, supplies scarce.

CALUMBA.—Ordinary natural sorts are quoted at 87s, 6d. per cwt. on the spot.

CARDAMOMS.—Firm. Aleppy greens on the spot are cleared; shipment offers are now 14s., per lb., c.i.f.

CHILLIES,—Mombasa are 285s, per cwt, on the spot, and 265s., c.i.f. Zanzibar are 295s., spot, and 270s., c.i.f. Sierra Leone not offering.

ELEMI.—Offers are from 1s. 9d. per lb. on the spot.

ERGOT.—Quiet. Portuguese for prompt shipment is 15s. 6d. per lb., c.i.f., with spot value around 17s.

GINGER.—Firm. African f.a.q. on the spot, from 92s. 6d. to 95s. per cwt. and for shipment, 87s. 6d., c.i.f., quoted. Jamaican No. 3 is also firmer at 117s. 6d. on the spot.

GUAIACUM RESIN.—Quotations are from 2s. 9d. to 3s. per lb. for spot material.

Gum ACACIA. — Kordofan cleaned sorts on the spot are quoted at 110s. per cwt. with shipment, 97s. 6d. to 98s., c.i.f., as to position.

HENNA. — Indian green leaves are at 90s, per cwt. on the spot and 65s, c.i.f., January-February shipment; brown leaves, 65s., spot, Sudanese are 100s, spot.

Honey.—Australian light-amber is firm on the spot at 100s. to 110s. per cwt.; medium-amber, 90s, to 95s. Argentine is from 115s. to 120s, Jamaican unchanged at 120s. to 130s. All ex warehouse terms.

HYDRASTIS.—Root is 18s. per lb., on the spot.

IPECACUANHA.—Nicaraguan for January PECACUANHA.—Nicaraguan for January shipment is about 49s, per lb., c.i.f.; Colombian, 46s. to 47s., c.i.f. Spot: Matto Grosso 46s.; Colombian, 51s.; Nicaraguan, 55s. to 57s. 6d.

KARAYA.—No. 1 gum on the spot is quoted at 200s. per cwt.; No. 2 is 140s.

KOLA NUTS.—African halves are available on the spot at from 43d to 53d per

able on the spot at from  $4\frac{3}{4}$ d. to  $5\frac{1}{2}$ d. per lb., as to quality.

Liquorice.—Natural whole root, spot; Anatolian, 60s. per cwt.; Russian, 40s.; Syrian, 37s. 6d. Block juice quotations are 195s. per cwt., delivered. Turkish stick is 240s. and Italian stick, 475s. per cwt., both duty paid.

LOBELIA.—Herb is scarce on the spot.

Nominal value 3s, 6d, per lb.

MACE. — West Indian pale blade is
7s. 9d. per lb., for shipment, 6s. 11½d.,

MENTHOL. — Spot, Chinese is about 31s, per lb., duty paid, and for shipment, 27s., c.i.f.

ORANGE PEEL.—Bitter quarters, Spanish quoted at 1s. 4d. and West Indian at 1s. 2d. per lb. on the spot. No thin cut

ORRIS ROOT.—Offers of Florentine good sorts are 180s, per cwt,

PAPAIN.—Spot values for East African grade one are now 25s. per lb., and grade two, 22s. Ceylon white for shipment is about 24s., c.i.f.

PEPPER.—Quiet, White Sarawak, 6s. 5d. per lb. paid and from 6s. 3d. to 6s. 4d., c.i.f., quoted for shipment as to position. Black Sarawak, is 6s. per lb., spot and 5s. 9d., c.i.f. Black Malabar is 810s. per cwt. spot and 725s., c.i.f. for afloat.

PODOPHYLLUM.—Peltatum is 336s. per cwt. on the spot. Emodi is 140s.

Quassia. — February-March shipment offers are 31s. per cwt., c.i.f.

QUILLAIA.—Supplies of whole bark are cleared on the spot. Cut is 160s, per cwt. RAUWOLFIA (SERPENTINA). - Offers for

prompt shipment are at 4s. 6d., c.i.f. RHUBARB.—Chinese of reasonably good quality is scarce on the spot and no offers

from origin. SAFFRON. — Mancha superior is about

155s. and selecta, 160s. per lb.

Sandarac. - Morocco is 12s. 6d. per 1b. on the spot.

SEEDS.—Rates per cwt. are: ANISE.—Cyprian firm at 170s., spot. CARAWAY.—Sellers now quoting Dutch at 95s. to 97s. 6d., duty paid, London. CELERY.— Indian, unchanged at 210s. CELERY. — Indian, unchanged at 210s. CORIANDER. — Moroccan now quoted at 57s. 6d. duty paid (52s. 6d., in bond); English, 75s. Shipment: Moroccan advanced to 50s., c.i.f., quoted, easing later to 47s. c.i.f. CUMIN.—Spot; Cyprian, 150s. Moroccan, 127s. 6d., duty paid. Moroccan is now slightly easier for shipment at 102s. 6d., c.i.f.. London. DILL.—Indian is dearer; sellers now asking 90s. spot owing to the shipment price advancing to 87s. 6d., c.i.f. FENNEL.—Weak. Indian, 125s. spot, London. FENUGREEK.—Moroccan is firm at from 48s, to 50s., duty paid, quoted. MUSTARD, —English, 70s. to 87s. 6d. according to quality.

SENEGA.—Quiet, Shipment quotations are 16s, per lb., c.i.f. Spot material is offered at about 15s.

SENNA.—Tinnevelly LEAVES: on the spot, 11½d. per lb.; number 2, 10d., and number 3, 8d. PODS, f.a.q., are about per lb. on the spot and 5½d., c.i.f. January-February shipment, Hand-picked range from 1s. 6d. per lb. ex wharf. Alexandrian PODS manufacturing, 1s. 8d. to 2s. 3d.; medium hand-picked, 3s. to 3s. 9d.

SHELLAC. — Spot quotations are:— F.O.T.N. pure 270s, nominal; F.O. standard No. 1, 280s.; fine orange, 290s, to 330s, per cwt., ex-London warehouse.

SQUILL.—Italian white on the spot is 70s. per cwt. nominal. No. 2 is about 60s., no offers of white from origin.

TURMERIC.—Steady, Rajapore is 125s. per cwt., paid for spot; Madras finger, 130s. New crop for March-April shipment is firmer at 92s. 6d., c.i.f.

UVA URSI.—Spot offers are about 85s. per cwt.

VALERIAN.—Indian is 145s, per cwt. on the spot and from 130s, to 145s, c.i.f. Belgian, 185s., spot.

WAXES.— BEES.— Dar-es-Salaam spot, 420s, per cwt., January-February shipment, 415s., c.i.f., Sudanese and Abyssinan, 370s., c.i.f., spot, 415s., duty paid; Benguella, 385s., c.i.f., and 420s., duty paid. Candelilla.—Spot is unchanged at 635s, per cwt. Carnauba.—Prime yellow on the spot is 1,100s, per cwt.; shipment 1,000s., c.i.f.; fatty grey is 740s. on the spot; shipment, 705s., c.i.f. Ouricuri.— Spot 0.5 per cent, impurities, 705s. per cwt. Spermaceti.—Case lots are about 1s. 9d. per lb.

# Essential and Expressed Oils

Anise.—Firm. Spot supplies are now 8s. per lb.; forward 7s. 9d. to 8s. ld., c.i.f., second-hand sellers; origin 8s. 3d.,

Bois de Rose. → Brazilian on the spot is 32s. 6d. and 29s. 9d., c.i.f.

CADE.—Spanish is about 3s. per lb. on the spot for 1-cwt. lots.

CAJUPUT. — Spot supplies are 15s. 6d. per 1b.

CALAMUS. — Imported oils are offering from 75s. per lb.

CAMPHOR, WHITE.—Chinese is 3s. per lb., on the spot.

CARDAMOM.—Price per lb. is from 315s. or English-distilled and 230s. for imfor

Cassia. — Original drums are about 10s, 6d, per lb, for spot and 8s., c.i.f.

CHENOPODIUM.—1-cwt. lots are 47s. 5d.

CINNAMON, — B.P. oil on the quoted at from 60s. per lb. English bark oil is offered from 23s. per oz. Ceylon leaf is from 9s. per lb.

CITRONELLA. — Quiet. Prices (per lb.) are:— Ceylon, spot, 3s. 9d. per lb.; shipment, 3s. 8d., c.i.f.; Java, 6s. 3d., duty paid; shipment, 5s. 9d. c.i.f.; Formosa, Prices (per lb.) 6s. duty paid and 5s. 4½d., c.i.f.

CLOVE. — Madagascar leaf is firm at 12s. per lb., duty paid, and 10s., c.i.f., for shipment. Redistilled stem oil from 17s. 6d., and English distilled bud oil is now offered at 55s.

DILL. — B.P. English-distilled oil is quoted at 60s. per lb. Imported oils are offered at from 30s. to 46s. per lb., as to origin.

EUCALYPTUS. — Drum lots of 70 to 75 per cent. eucalyptol on the spot are 5 per lb., and 80 to 85 per cent., 5s, 6d.

FENNEL.—Spanish sweet on the spot is quoted from 9s. 6d. per lb.

GARLIC.—English is from 55s, to 60s. per oz.

GERANIUM.—Bourbon is 82s. 6d. per lb. on the spot. Shipment, 79s., c.i.f.

HYDNOCARPUS.—Spot is offered at 2s. 2d.

JUNIPER BERRY. — Imported oils are offered at 17s. 6d. per lb., duty paid. English-distilled is offered at 75s. to 80s.

LEMON.—B.P. (4 per cent. citral) on the spot is about 45s, per lb.

LEMONGRASS.—Very firm East Indian now 8s.  $7\frac{1}{2}$ d. per lb. on the spot and s.  $7\frac{1}{2}$ d. c.i.f., for shipment.

Nutmeg. — English-distilled oil is from 42s, 6d, to 44s, per lb. Imported oil is offered at 24s, per lb., duty paid for drum

ORANGE.—Spot offers for sweet vary as to quality and quantity. West African is 11s.: Jamaican, 9s. 3d.: Palestinian, 10s., per lb.

ORIGANUM.-In original containers the price is 14s. per lb.

PATCHOULI. — Penang for shipment is 50s, per lb., c.i.f., with spot offers at 57s. 6d.

PEPPERMINT. — Arvensis: Chinese is about 19s. 6d. per lb., spot and 18s., c.i.f., about 198, od. per 10., spot and 188, c.1.f., January-February shipment: Brazilian (45 per cent.), 14s, 3d, spot; forward, 13s, 6d., c.i.f. Italian "Mitcham" type oil is 52s, 6d, per lb., for best quality on the spot.

Sandalwood. — Mysore is 70s. per lb. for 7 x 25-1b. tins.

Spearmint.—Offers of B.P.C. quality are from 57s. 6d. per lb.

THYME.—B.P.C. is about 9s. 6d. per lb. VETIVERT. — Bourbon in original drums on the spot is about 110s, per lb.

## COMING EVENTS

Items for inclusion under this heading should be sent in time to reach the Editor not later than first post on Wednesday of the week of insertion,

#### Monday, January 18

BIRKENHEAD AND WIRRAL PHARMACISTS' ASSOCIA-TION, 39 Hamilton Square, Birkenhead, at 8 p.m. Meeting to formulate resolutions for the Branch Representatives' meeting in May,

CROP PROTECTION PANEL, SOCIETY OF CHEMICAL INDUSTRY, Chemical Society, Burlington House, Piccadilly, London, W.1, at 5.30 p.m. Mr. F. G. Ordish on "Economics of Crop Protection."

HENDON AND EDGWARE BRANCH, PHARMACEUTICAL SOCIETY, Green Man Hotel, Hale Lane, Edgware, at 8 p.m. Dr. A. E. Bender (head of the Crookes Laboratories department of nutrition research) on "Food and Health." Film; "The Story of Halibut Oil."

MERSEYSIDE BRANCH, NATIONAL ASSOCIATION OF WOMEN PHARMACISTS and LIVERPOOL BRANCH, GUILD OF PUBLIC PHARMACISTS, Department of Pharmacology, Ashton Street, Liverpool, at 7 p.m. Professor A. Wilson on "Prescribing, Pharmaceutics and Propaganda."

NOTTINGHAM BRANCH, PHARMACEUTICAL SOCIETY, medico-chirurgical hall, 64 St. James's Street, Nottingham, at 7,30 p.m. Mr. E. A. Brockle-hurst (vice-president of the Society) on "Talking about Pharmacy."

ROMFORD BRANCH, PHARMACEUTICAL SOCIETY, Unicorn Hotel, Gidca Park, at 7.30 p.m. Dr. J. H. Wilkinson on "Some Recent Additions to Our Knowledge of the Thyroid Gland."

# Tuesday, January 19

NORTH STAFFORDSHIRE BRANCH, PHARMACEUTICAL SOCIETY, Grand Hotel, Hanley, at 7.30 p.m. Meeting to formulate resolutions for the Branch Representatives' meeting.

SLOUGH BRANCH, PHARMACEUTICAL SOCIETY, Old Refectory, Beaconsfield, at 8 p.m. Mr. Refectory, Beaconsfield, at 8 p.m. Mr. R. T. M. Haines (Crookes Laboratories, Ltd.) on "Surface Tension."

ABERDEEN AND NORTH EASTERN SCOTTISH BRANCH, PHARMACEUTICAL SOCIETY, Palace Restaurant,

A = A dvanced:

dvanced; R=Reduced; I.R.P.=Inclusive
Retail Price; \*=Tax 25 per cent.

Aberdeen, at 7.45 p.m. Dr. G. R. Boyes (chairman of the British Pharmaceutical Conference, 1953) on "Man against Microbes."

BRADFORD BRANCH, PHARMACEUTICAL Victoria Hotel, Bridge Street, Bradford, at 7.45 p.m. Mr. W. G. Smith, B.Pharm., Ph.C., on "Experimental Pharmacology."

WEST MIDDLESEX BRANCH, PHARMACEUTICAL SOCIETY, Feathers Hotel, Broadway, Ealing, London, W.5, at 7.45 for 8 p.m. Pharmaceutical films by courtesy of Burroughs Wellcome

#### Wednesday, January 20

CORNISH BRANCH, PHARMACEUTICAL SOCIETY, Carlyon Bay Hotel, St. Austell, at 7.30 for 8 p.m. Annual dinner and dance.

ROYAL INSTITUTE OF CHEMISTRY and SOCIETY FOR ANALYTICAL CHEMISTRY, Institution of Electrical Engineers, Savoy Place, Victoria Embankment, London, W.C.2, at 6 p.m. Dr. D. W. Kent-Jones and Mr. G. Taylor on The Determination of Alcohol in Blood and Urine.

SCOTTISH DEPARTMENT, PHARMACEUTICAL SOCIETY OF GREAT BRITAIN, 36 York Place, Edinburgh, at 7,30 p.m. Dr. G. R. Boyes (head of the medical information department, Allen & Han-burys, Ltd.) on "Onwards from Penicillin."

SOUTHAMPTON BRANCH, PHARMACEUTICAL SOCIETY, Polygon Hotel, Southampton, at 6.45 for 7.15 p.m. Annual dinner and dance.

#### Thursday, January 21

DUNDEE AND EASTERN SCOTTISH BRANCH, PHAR-MACEUTICAL SOCIETY, Empress Ballroom, Dundee, at 7.45 p.m. Dinner and dance.

SOUTH-EASTERN ASSOCIATIONS, Pyne's Restaurant, 153 Lewisham Way, London, S.E.14, at 6.30 for 7 p.m. Annual dinner and dance. Ticket 25s. from Mr. F. H. E. Hook, 25 Manwood Road, Crofton Park, London, S.E.4.

#### Friday, January 22

MANCHESTER AND SALFORD BRANCH, PHARMACEUTI-CAL SOCIETY, and MANCHESTER BRANCH, GUILD OF PUBLIC PHARMACISTS, Engineers' Club, Albert Square, Manchester, at 7.45 p.m. Address by Professor A. Wilson.

SOCIETY OF COSMETIC CHEMISTS, St. Ermin's Hotel, Caxton Street, London, S.W.1. Annual dinner and dance. Tickets (single, 25s.; double, 47s. 6d.) and further information from Mr. E. Polan, 228 Worple Road, Wimbledon, London,

WEST LONDON BRANCH, NATIONAL PHARMACEUTI-CAL UNION and WESTERN PHARMACISTS' ASSO-CIATION, Bonnington Hotel, Southampton Row, London, W.C.1, at 7.15 for 7.30 p.m. Mr. H. Holmes (chairman of the N.P.U. Executive) "Looking into the Pharmaceutical Mirror.

#### Advance Information

CHELSEA SCHOOL OF PHARMACY ASSOCIATION, De Vere Hotel (facing Kensington Palace Gardens), London, W.8. Reunion dinner on February 25. Ticket, 25s., and further information from secretary, Mr. D. C. Harrod, School of Pharmacy, Chelsea Polytechnic, Manresa Road. London, S.W.3.

# TRADE MARKS

From the "Trade Marks Journal," December 30,

For industrial chemicals (1)

AVCOSET, 723,474, by American Viscose Corporation, Philadelphia, U.S.A.

For skin lotions being non-medicated toilet preparations (3)

ANGEL SKIN, B719,902, by Pond's Extract Co., Ltd., Greenford, Middlesex.

For hair preparations (3)

KILLICURL, B721,477, by Killicurl Manufacturing Co., Manchester.

For all goods (5)

CYCLOL, B718,560, by Cyclo Chemicals, Ltd., London, W.C.2, INFASULPEN, 723,862, by Allen & Hanburys, Ltd., London, E.2.

For pharmaceutical preparations (5)

TERGIPLEX, 719,769, by E. R. Squibb & Sons, Ltd., London, W.1. OPSAN, 722,740, by Boots Pure Drug Co., Ltd., Nottingham.

For medicated confectionery (5) CLOVERCOSE, 720,224, by Roland Fletcher Hall, Manchester,

#### C. & D. WEEKLY LIST OF PRICE CHANGES

HOWARDS OF ILFORD, LTD. (from Janu- No. 50 Enseals

	Doz.	1,1	ζ.Р.	
BAYER PRODUCTS, LTD. Roccal disinfectant	15 4	1	11	R
GENATOSAN, LTD. Genozo mouthwash tablets*				
20	13 6	1	91	$\boldsymbol{A}$
50	24 0 Each	3	6	A
500	8 6			A
1,000	16 0			Â
GLAXO LABORATORIES, 18)	LTD, (fro	m Ja	nua	ry
Crystapen oral tablets,				
200,000 units 12		5	3	R
100		36		R
500		174		
400,000 units, 12		9		
100		70		
500		345		R
300		343	U	K
HODGES & MOSS, LTD.	Doz.			
Winlam*		-	0	
	48 0			
Carriage paid on orders of per cent, discount given of				
THE MULLER LABORATO	RIES.			
Muller nutrient tablets*		3	9	
11201101 IIIIIIII EUOIVO		6	6	
		-		
PARKE, DAVIS & CO., LTI	Dr.			
Folic acid tablets, 5 mgm.				
25		5	3	R
100		19	3	R
100		17	9	1
ROBINSON & SONS, LTD. Animalintex veterinary poul- tice dressing, pkt. of 10	(Correcti Each 30 0	on).		
greening, price of 10				

P.A.T.A. PROTECTED LIST DUNCAN, FLOCKHART & CO., LTD. (from January 1)
Baumol toilet soap\*

CO., LTD. (from Doz. 10 0 1 3 A

ary 15)								gr. }	25	20	0	2	6	R
Howards' aspirin tablets*	25	7	0	1		A			100	56	0	7	0	R
	100	19	0	3	0	A	No. 51	Enseals						
£10 lots	25	6	6					gr, 1}	25	32	0	4	0	R
	100	18	0						100	88	0	11	0	R
			_				No. 243	Pulvules			_			
THOS, KERFOOT &	CO	LT	D.	(addit	ion	)		gr. }	100	48	0	6	0	R
Vapex medicated rub*	+0.,	13			11			0-1 4	500	208	ŏ	26		R
				_			No. 240	Pulvules			-			
ELI LILLY & CO.,	LTD	. (1	0	trade	fr	om	1.0. 2.0	gr. 1½	100	72	0	9	0	R
January 11: to public								8.4 . 2	500	336	ŏ	42	0	R
Amytal tablets	110111	1 00.		.,,			Sodium A	mytal Pulvule		550	•			•
No. 1564 gr. ‡	100	16	0	2	0	R	No 111	gr. 1	100	48	0	6	0	R
140, 1504 gr. g	500	44	0	5	6	R	140 111	51. 1	500	228	0	28		R
NI- 1676 1				2	6	R	NT- 222	2			-		6	R
No. 1575 gr. 1	100	20	0				No. 222	gr. 3	100	100	0	12		
	500	56	0	7	0	R			500	480	0	60	0	R
No. 1678 gr. ½	100	24	0	3	0	R	Tuinal Pul							
	500	72	0	9	0	R	No. 303	gr. 1½	100	64	0	8	0	R
No. 1550 gr. 3	100	28	0	3	6	R			500	308	0	38	6	R
	500	84	0	10	6	R	No. 304	gr. 3	100	104	0	13	0	R
Seconal sodium:									500	488	0	61	0	R

# C. & D. RETAIL AND DISPENSING PRICE LIST

The drug index for December 1953 was 195

(	Cost	Item	Poison Class	4 oz.	1 oz.	1 dr.
d.	per	Ion	Class	s. d.	s. d.	s. d.
33 27 33 78 39 99 84 72 60 90 30 48 102 36	100 mil. 500 gm. 25 gm. 25 gm. 500 gm. 500 gm. 500 mil. 500 mil. oz. oz. 10 gm. 500 mil.	Acet cantharidin.  Applicat. detergens, N.F. Cetrimidum Chrysarobinum Conspers. zinc. ox. et ac. salicyl., B.P.C. Glyc. phenol s lpecac. præp. Lin. camphor. Mist. b sm. co. acid. c, pepsin., B.P.C.'34 Neb. isoprenalin. sulph. Neb. isoprenalin. sulph. Ol. coriandri. Ol. r cini Ang. Tinct. limonis.	S.1. P.1. (13) S.1. (6)	0 11 	1 4 0 3 5 5 5 0 5 0 10 0 11 0 7 4 5 7 0 0 4 5 7 .	0 2½ 0 10 1 1

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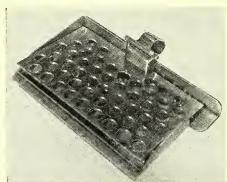
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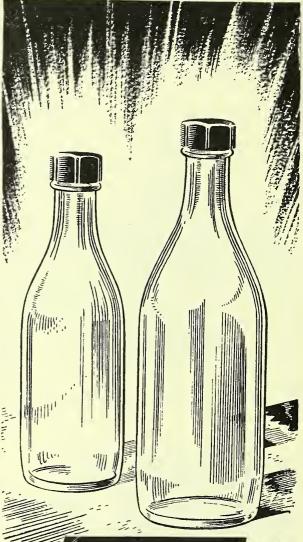
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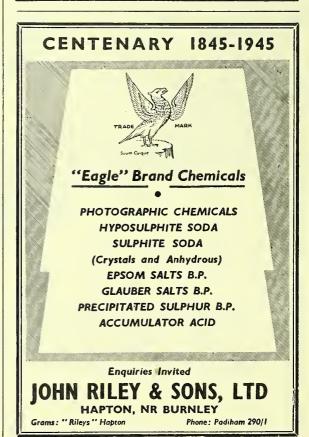


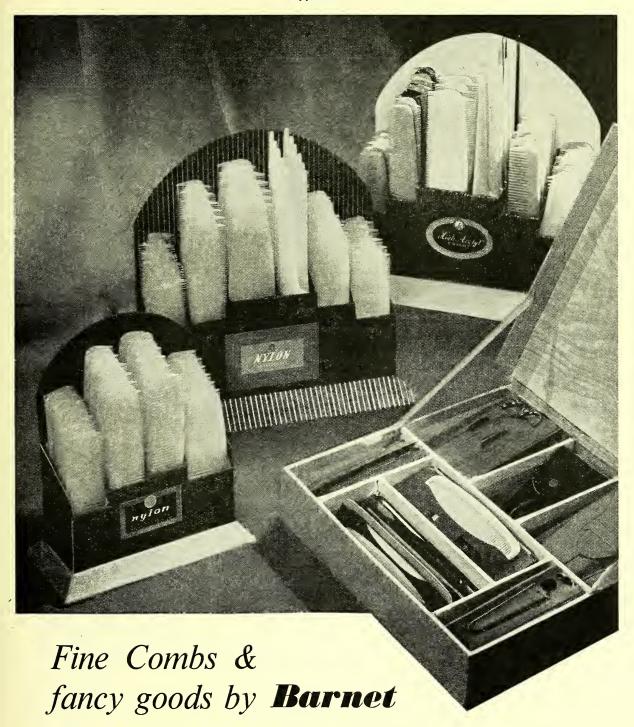
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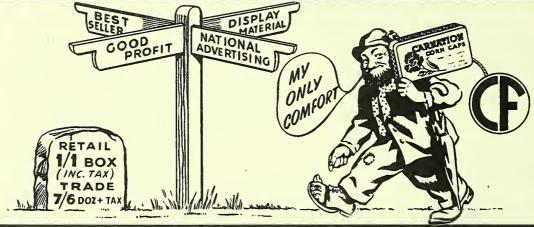


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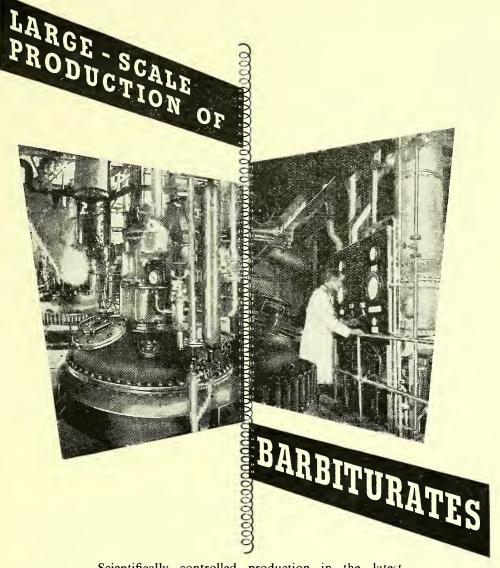
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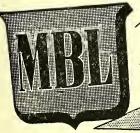
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CHIEF PHARMACIST (Category IV) with responsibility for small hospital within the Group.
Salary scale £735 x: £25 to £885 plus London
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C 6399 C 6399

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ARTHUR JONES, Secretary to the Committee

Doncaster Royal Infirmary.

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and conditions of service as laid down by the

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Applications, giving age.
of experience, together w nationality, details Applications, giving age, nationality, details of experience, together with the names and addresses of two referees, are to be sent to the undersigned as soon as possible.

A. T. SAMPSON, Dept. "C.D.",

Group Secretary, C 176

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MANAGEMENT COMMITTEE
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(Resident or Non-resident)
At the SHOTLEY BRIDGE GENERAL HOSPITAL (557 beds).
Appointment offers a thorough experience in all branches of hospital pharmacy. Applicant would be responsible for the manufacture of sterile preparations, Salary and conditions of service according to the Pharmaceutical Whitley Council decisions.
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C 6355

Durham.

# PRESTWICH (MENTAL) HOSPITAL,

Nr. MANCHESTER
Senior Pharmacist
required at Prestwich (Mental) Hospital. Applications should be sent to the Secretary, Prestwich Hospital, Prestwich, nr. Manchester, not later than Saturday January 23, 1954. C 6400

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ROYAL FREE HOSPITAL

Pharmacist

Applications are invited for the post of Pharmacist at the above hospital, Salary £450 (at age 23) x £25 p.a. pt. £55 p.a. plus London Weighting of £20 p.a. under age 26 and over, An additional £25 p.a. will be paid to candidates possessing an approved higher qualification. Applications, stating age, experience and referees, should be addressed to the Group Chief Pharmacist, Royal Free Hospital, Gray's Inn Road, W.C.1.

C 6406

ROYAL FREE HOSPITAL
Senior Pharmacist

Applications are invited for the post of Senior Pharmacist to take charge of Out-Patient Dispensary. Salary in accordance with Whitley Council Scale. Applications, with names of two referees, should be addressed to Group Chief Pharmacist, Royal Free Hospital, Gray's Inn Road, W.C.1.

C 6404

ROYAL HALIFAX INFIRMARY
Pharmacist

APPLICATIONS invited for post of PHARMACIST at the above hospital. Salary in
accordance with Whitley Council Scales,
namely £450 x £25 to £575 per annum. Applications stating age, qualifications and experience with names and addresses of two referees,
to be forwarded to the Group Secretary, Royal
Halifax Infirmary, Halifax. C 6370

#### ROYAL FREE HOSPITAL GROUP Pharmacist

Pharmacist

Applications are invited for the post of Pharmacist at the North Western Branch and Hampstead General Hospital, Hampstead, N.W.3. Salary £450 (at age 23) x £25 p.a. to £575 p.a. plus London Weighting of £20 p.a. under age 26 and £30 p.a. age 26 and over. An additional £25 p.a. will be paid to candidates possessing an approved higher qualification. Applications, stating age, experience and referees should be addressed to the Group Chief Pharmacist, Royal Free Hospital, Gray's Inn Road, W.C.1.

ST. GEORGE'S HOSPITAL,
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LONDON, S.W.1
Pharmacist
required to work in Sterile Products Laboratory of this teaching hospital, Salary and conditions in accordance with Whitley Council Scale. Apply, in writing, to: Chief Pharmacist, C 6419

ST. MARK'S HOSPITAL,
CITY ROAD, LONDON, E.C.1
(Post-graduate Teaching Hospital)
Pharmacist

Applications invited for the appointment of
PHARMACIST at the above Hospital, where
there is a busy Pharmaceutical Department
and a wide variety of experience is offered.
Salary scale £450-£575 p.a., plus London
Weighting. Age, qualifications, experience,
names of two referees to Secretary. C 6388

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Chief Pharmacist
required at this Chronic Sick Hospital. Salary
£575 x £25—£675 per annum (Cat. I). Apply,
giving names of two referees, to the Hospital Secretary. January 6, 1954.

# WEST HAM GROUP HOSPITAL MANAGEMENT COMMITTEE,

MANAGEMENT COMMITTEE,
STRATFORD, E.15
Deputy Chief Pharmacist
required at Queen Mary's Hospital for the
East End, Stratford, E.15 (Category IV).
Whitley Council salary and conditions of service: £575 x £25—675 per annum plus London Weighting, Applications with copies of recent testimonials to the Group Sceretary,
West Ham Group Hospital Management Committee, Stratford, E.15, as soon as possible.
C 6398

# WORTHING GROUP HOSPITAL MANAGEMENT COMMITTEE WORTHING HOSPITAL, LYNDHURST ROAD

LYNDHURST ROAD,
WORTHING, SUSSEX
Pharmacist
Applications are invited for the post of Pharmacist (male or female) at the above Hospital. Salary and conditions of service in accordance with Pharmaceutical Whitley Council. Applications, stating age, qualifications, experience and present employment, with the names of two referees to be forwarded to the Hospital Secretary.

A. V. OAKTON, Group Secretary. C 6376

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Further appointments will shortly be made to our Home representative staff and applications are invited from pharmacists not over 35 who are interested in this type of work as a career.

Previous experience of representation is not necessary but applicants should have a good pharmaceutical background and a keen interest in ethical pharmacy. Salaries are based on experience and appointments are

progressive and pensionable. Application forms may be obtained from the Personnel Manager, Parke, Davis & Co. Limited,

Staines Road, Hounslow, Middlesex.

# RIKER LABORATORIES LIMITED

have two vacancies in a new production unit at Loughborough.

(a) ASSISTANT CHEMIST: A qualification in Chemistry and/or Pharmacy is required, Applicants should have had several years in industry with, preferably, some experience in pharmaceutical analysis. The post offers opportunities for further advancement. The initial salary will be between £700-£1,000 per annum, according to age and experience.

(b) TECHNICIAN: A man with experience of small-scale processing in the fine chemical or pharmaceutical industry is required. A salary commensurate with experience will be paid to the most suitable candidate.

A pension scheme and five-day week are applicable to both these positions, Details of age, education, qualifications and experience should be addressed to—The Production Manager, Riker Laboratories Limited, Kirkewhite Street, Nottungham.

#### Appointments—Continued

# THE HOSPITAL FOR SICK CHILDREN, GREAT ORMOND STREET,

LONDON, W.C.1
Pharmacist
Applications arc invited for the post of pharmacist Apply and the linker of the post of pharmacist at this hospital. Salary within the Pharmaceutical Whitley Council Scale (£450 x £25—£575) plus London Weighting, £25 for recognised higher qualification. Apply by letter to Chief Pharmacist, C 166

# WALTON HOSPITAL, LIVERPOOL, 9 (1321 beds) Pharmacist

Pharmaeist required at this large general hospital, Excellent opportunity for varied experience, Salary in accordance with National Scales, Applications on forms obtainable from Secretary, C 6402

# WEST LONDON HOSPITAL, HAMMERSMITH ROAD,

LONDON, W.6
Senior Pharmacist (Male)
required to take charge of production, sterile
preparation and stores at the above general
teaching hospital, where there is a busy pharmaceutical department and a wide variety of
experience is offered.
Salary scale £525—£625 plus London Weight-

Salary scale £525-£625, plus London Weight-

Other terms and conditions in accordance with Pharmaceutical Whitley Council. Age, qualifications, experience, names two referees, to Sccretary. C 6421

# WEST MIDDLESEX HOSPITAL (Category V) (SOUTH-WEST MIDDLESEX HOSPITAL

HOSPITAL
MANAGEMENT COMMITTEE)
Pharmacist
Pharmacist required. Salary scale £450 x £25 to £575 plus London Weighting, Higher qualification allowance £25 per annum. Whitley conditions applicable. Applications stating age, qualifications and experience with names of two qualifications and experience with names of two referees to Chief Pharmacist, West Middlesex Hospital, Isleworth, Middlesex. C 6344

# SITUATIONS OPEN

8/6 for 36 words (min.) then 3d. per word.

The engagement of persons answering these advertisements must be made through a Local Office of the Ministry of Labour or a Scheduled Employment Agency if the applicant is a man aged 18-64 inclusive or a woman aged 18-59 inclusive unless he or she, or the employment, is excepted from the provisions of the Notification of Vacancies Order, 1952.

#### RETAIL (HOME)

NORTHOLT. Unqualified assistant with dispensing experience required immediately. Permanency, S. Jones, 155 Church Road, Northolt. Tel.: Waxlow 1817. C 4774 MANAGER REQUIRED for large old-established pharmacy in main shopping centre. Permanent progressive job for experienced man capable of complete control including buying. M. Mimimum salary and commission £1,000 p.a. No living accommodation, H. H. Cooper, Ltd., 22 Streatham High Road, S.W.16. Phone: Battersea 8113. C 4778 NEWCASTLE-UPON-TYNE, Pharmacist with sales ability and initiative required for City business. Position leads to managership, Good supporting staff, No rota dut.es. Saturday hall-holiday. Superannuation scheme optional. Apply fully, stating age, experience, salary required to Brady & Martin, Ltd., 29 Mosley Street, Newcastle-upon-1 yne. C 4792 NORTH LONDON. Unqualified dispensing assistant required for branch in Park Lane, Tottenham. Salary plus bonus. Hours 9 a.m.-6 p.m. Permanency. Three weeks' holiday a year. Apply with details of experience to A. R. Cross, Ltd., 476 Hertford Road, Enfield, or telephone Howard 1723 or 2916 for an appointment.

YOUNG LADY toilet assistant required for branch on Surrey-London borders. Modern, well fitted shop with all leading agences, Superannuation scheme, Please give all particulars of age, previous experience, and salary required to the Managing Director, Arnold M. Gee, Ltd., Derwent House, 12 High St., Colliers Wood, London, S.W.19. MANAGER REQUIRED for large old-estab-

### LOCUMS WANTED

ARNOLD M. GEE, LTD., have a vacancy for a pharmacist for locum duties in the South London area. This can be for a period of a few months or a permanency according to the applicant's wishes. If a permanency then superannuation scheme operates, Excellent experience in taking full charge of all types of branches. Undeniable references required Please size all Undeniable references required. Please give all particulars of age, previous experience, and approximate salary required to the Managing Director, Derwent House, 12 High St., Coll.ers Wood, London, S.W.19.

#### RETAIL (OVERSEAS)

A VACANCY EXISTS for a pharmacist (single man) for service in E. Africa with a company with retail branches in Nairobi, Dar-es-Salaam, Mombasa, Tanga, Arusha, Eldoret, Kampala, Kitale and Nakuru. Starting salary £810 p.a. including cost-of-living allowance, with three annual increments to £900 p.a. and four further annual increments to £1,100 p.a. Tours are for four years with annual local leave followed by home leave on full basic pay. Contract renewable by mutual agreement, Kit allowance and free passage both ways, Non-contributory pension plan now being introduced. Applicants must hold M.P.S. qualification of Great Britain or Northern Ireland. Apply, in writing, giving qualifications and experience to Box C 6384.

#### WHOLESALE

A PROPRIETARY manufacturing company in A PROPRIETARY manufacturing company in the London area has a vacancy for a physical chemist to head up a section of its research laboratory in connection with the development (including formulation and processing) of an emulsion product. The position is a permanent one and the Company operates a five-day week and a generous pension scheme. Write, in confidence, giving fullest details of education, qualifications, age, experience and salary required to Box C 6410. A SALES REPRESENTATIVE for bulk pharmaceutical chemicals is required to call on hospitals and wholesalers in London and the South of England. Applicants should be pharmacists with experience in hospital or retail pharmacy and should be able to work on their own initiative. Remuneration will be well above the average and a car supplied. Applications, which will be treated in the strictest confidence, should contain full details of education, age and career and should be sent, marked "Confidential." to Mr. R. H. Kenyon, Director, Pharmaceutical Laboratories Geigy, Ltd., Tenax Road, Trafford Park, Manchester. C 6432

ADDIS, LTD. (Makers of Wisdom) require additional representatives for Laneashire and the South Midlands. Applicants should have experience of calling on chemists. The positions are interesting, progressive and pensionable. Salary, commission, expenses and ear allowance. Write, giving details of age, experience, salary required and whether car owner or not to Addis, Ltd., Brushworks, Hertford. A SALES REPRESENTATIVE for bulk phar-

AN OPENING EXISTS near London for a pharmacist in an expanding department of a manufacturing company, Age 20-30, Duties will include pharmaceutical supervision of manufacturing section, analytical control work, development of biochemical and other products, the transfer of laboratory researches to the manufacturing scale and pharmaceutical formulation. Pension scheme, 5-day week. Salary £580-£630. Full details to Box C 6416.

DELAVELLE (SALES), LTD., 38/46 Orsman. Road, London. N.1, require live representative to market their nationally advertised perfume and cosmetics in the South-west area, which inclindes, Wilts, Dorset, Gloucester, Somerset, Devon, Cornwall, etc, Must be car owner and have connection chemists, stores, co-ops, and wholesale outlets, Remuneration by salary, commission and expenses. Write fully giving details of experience, age and present remuneration.

C 6411

details of experience, age and present remuneration.

C 6411

EXCELLENT OPPORTUNITIES for representatives to carry exceptionally fine range of ready selling products (well-known proprietaries and medicated confectionery) on generous commission terms to commence. (a) Yorkshire; (b) Lancashire and Cheshire; (c) London and South-east Counties; (d) West country. Applicants must be car owners with strongly established connections amongst retail and wholesale chemists, co-operatives and stores, Please send fullest confidential information and include when available for interview. Box C 4790.

EXCELLENT OPPORTUNITY for representatives calling on wholesale and retail chemists in the two areas detailed below to carry additional nationally advertised lines on good commission basis, Advertisers are well-known manufacturers of hair beauty preparations with established connections in the territories, Territor es are (a) Norfolk, Suffolk, Cambs, Hunts, Beds, Herts, Bucks, Berks, Oxon; (b) West Country including Glos, and Wilts, Full particulars to Box C 4750.

GENATOSAN, LTD., a member of the Fison

ticulars to Box C 4750.

GENATOSAN, LTD., a member of the Fison of Group, require a medical representative to cover general practitioners, hospital medical officers, etc., in the S.E. London area. This is a well remunerated and superannuated post, with good prospects for a keen and energetie person, preferably with experience of medical detailing and a pharmaceutical background. Full personal details with summary of attainments and experience should be addressed to:
The Personnel Officer, Genatosan, Ltd., 12
Derby Road, Loughborough, Le.cs. C 6412

#### VACANCIES FOR MEDICAL REPRESENTATION

A progressive pharmaceutical company, now expanding its activities, has immediate vacancies for Medical Representatives in (1) Midlands, preferably based on Birmingham (2) West Country, preferably based on Bristol (3) London area. Pharmaceutical qualification or medical education is desirable. Full training and every assistance will be given to successful applicants. Salaries are commensurate with qualifications, experience and progress, all expenses are paid and a car is provided. Full details should be given in strict confidence. Apply Box C 4779

# **COMMISSION AGENTS**

active in the following areas:-

London,

Home Counties,

Oxfordshire & Warwickshire (incl. Birmingham), Berkshire, Wiltshire, Gloucestershire,

required by reputable pharmaceutical House for special assignment. A very generous rate of commission is offered with a guaranteed £50 per month.

The Company intends to build up a "new look" organisation and an excellent opportunity presents itself to selected Agents after proving their worth on the special project. Box C 6391.

#### Situations Open—Continued

FOR LONDON, South of London, the Home Counties and the Midlands, representatives wanted who wish to make additional turnover with the sale of well-known sunglasses. Existing accounts to be taken over. Good commission. Nupro, Ltd., 2 Netherwood Street, London, N.W.6. C 4760 accounts to be taken over. Good commission, Nupro, Ltd., 2 Netherwood Street, London, N.W.6.

Nupro, Ltd., 2 Netherwood Street, London, N.W.6.

OHNSON & JOHNSON (Gt. Britain), Ltd., due to a promotion require a first-class representative to call on retail and wholesale chemists in the Liverpool area. Preference will be given to those with connections in the area. The appointment is permanent and pensionable and remuneration is by salary and commission with expenses and car allowance, Applications, which will be treated in strict confidence, should give full details of past experience and be addressed to: Pharmaceutical Sales Manager, Johnson & Johnson (Gt. Britain), Ltd., Slough, Bucks.

C 6362

LABORATORY ASSISTANT, Inter. B.Sc. or equivalent, required for Midland Chemical Manufacturers works control laboratory, to be responsible for preparation of all standard analytical solutions and able to carry out miscellaneous chemical analysis. First class working conditions, Pension scheme. Apply in writing stating age, training, experience and salary required to Box C 4772.

LEADING HOUSE of manufacturing chemists require additional first-class experienced representatives in London, Birmingham, Yorkshire, S.E. and S.W. Counties owing to expansion. Applicants should submit full details of experience, connection, age, etc., which will be treated in strict confidence. Box C 4795.

MACLEANS, LTD., manufacturers, require an energetic and capable sales reprecentative who is trained in modern sales methods to sell to chemists in Edinburgh and the East of Scotland. Applicants should be aged between 28 and 35 years, resident in above area, have some knowledge of selling to retail chemists and be willing to undergo any necessary further sales training. This is an opportunity for joining a first-class organisation where car, salary and expenses are provided and pension and profit-sharing schemes are operated. Write, stating age and details of experience to Personnel Manager, Macleans, Ltd., Brentford.

sonnel Manager, Macleans, Ltd., Brentford. Middlesex. C 6367 MANUFACTURING CHEMISTS require representative or agent in South Wales to sell on commission basis as additional lines two nationally advertised pharmaceutical specialities to retail and wholesale trade. Existing accounts handed o er, Write full details Box C 4794. MANUFACTURING CHEMISTS in East Yorkshire require man with manufacturing drug house experience including wet and dry counter, for general wholesale pharmaceutical works supervision. Permanent position with pension scheme for suitable man or woman, Full particulars including age, wage required, and copy references, to Box C 6433. MEDICAL REPRESENTATIVES: Applications are invited by Sandoz Products, Ltd., from young men wishing to become medical representatives in the territories of Bristol, London, N.E., London, N.W., and S. Wales. Age not exceeding 28. Applicants should be qualified pharmacists (Ph.C. preferably) or possess degree in scence. Salary commensurate with experience. Thorough training provided. Please send full details of age, education, qualifications and experence, with photograph, to the Manager, Sandoz Products, Ltd., 134 Wigmore Street, London, W.1. C 6334

MAY & BAKER, LTD., Dagenham, Essex, invite applications from pharmacists, ased 25-30, for a progressive position in their pharmaceutical chemical sales division. Excellent prospects of responsible executive appointment eventually for successful applicant. Five-day week. Contributory pension scheme. Apply, initially, in writing, giving full details of qualifications and experience to the 1-exonnel Officer.

C 6415

MAY & BAKER, LTD., Dagenham, Essex,

officer. C 6415

MAY & BAKER, LTD., Dagenham, Essex, require a Technical Sales Assistant, aged 22-26. Applicants should hold a B.Sc. Degree in chemistry and be able to carry out technical correspondence. Sonic commercial experience is desirable. Apply initially in writing giving full details of qualifications and experience to the Personnel Officer. C 6395

MEDICAL REPRESENTATIVE with pharmaceutical or medical background required by large firm of manufacturing chemists to interview doctors, hospitals and chemists in Sussex, Hampshire and the Isle of Wight. Car provided, Salary and expenses, Pension scheme. Apply giving age and full details of qualifications and experience, starting salary required. Box C 6424.

MEDICAL REPRESENTATIVES will shortly

MEDICAL REPRESENTATIVES will shortly be required to fill the following vacances:—
Northumberland and Durham; Derbyshire, Nottinghamshire and Leicestershire, Kemineration will be well above the average and a car supplied. Applicants should have a sound pharmaceutical or medical background and be able to work on their own initiative. Applications, which will be treated in the strictest confidence, should contain full details of education, age and career and should be sent, marked "Confidential," to Mr. E. A. Asher, Director, Medical Department, Pharmaceutical Laboratories Geigy, Ltd., Khodes, Middleton, Manc.ester.

C 6431

MEDICAL REPRESENTATIVES. Three vacanc.es: Newcastle, Birmingham, Le.cester-Notts areas. Pharmaceutical or medical training essential. Full particulars to William R. Warner & Co., Ltd., Power Road, London, W.4,

MEGGESON & CO., LTD., have a vacancy for a representative calling on chemists only, throughout Scotland. The applicants should own a car, for which a good maintenance allowance will be made. Remuneration will be by means of salary and commission, and the man appointed will be invited to join the company's superannuation scheme after a suitable trial period. Applications, giving full details of experience to date, should be addressed to the Sales Manager, Meggeson & Co., Ltd., II Garrison Lane, Chessington, Surbiton, Surrey.

C 6423

PHARMACIST required as assistant in general

PHARMACIST required as assistant in general

PHARMACIST required as assistant in general pharmaceut.cal manufacturing, ampoule and aseptic laboratories in the Birmungham area. Five-day week, Pension scheme, House available, Apply, giving all particulars including salary required to Box C 6393.

PHARMACIST for small proprietary med.cine business. Write giving age and exper.ence, Interview by appointment, George Eade, Ltd., 232 Goswell Rd., London, E.C.I. C 175 THE CHEMISTS FEDERATION is desirous of increasing its representative staff and invites applications for an assistant in the development of the work of the Federation. The work will involve outside representation throughout Great Britain as well as some office work in London, Salary commensurate with age and experience. Full details to Secretary, The Chemists Federation, 4 Queen Square, London. Chemists Federation, 4 Queen Square, London, W.C.1. C 4791

PARKE, DAVIS & CO., LTD., require an advertising assistant age 20-25. He will be required to write copy, assist in proof reading and handle display work under supervision. 5-day week. Generous pension plan. Staff restaurant. Write with full details of age and experience to Personnel Manager, Parke, Davis & Co., Ltd., Staines Road, Hounslow, Middlesex. dlesex. C 6414
SALES/REPRESENTATIVE, with established connections chemists and hospitals; drugs, dressings, proprietaries and chemists' sundries, car owner, unusual opportunity, East and West London and other London territories vacant. Apply to Biorex Laboratories, Ltd., 47-51
Exmouth Street, E.C.I. C 6417
SALESMAN REQUIRED with good connection chemists South Coast, by old-established manufacturers of toiletries. Write fully to Box C 6396.

ton chemists South Coast, by old-established manufacturers of toiletries. Write fully to Box C 6396.

SOUTH WALES. A well-known ethical house require the services of a first-class man as medical representative to take over their e-tablished connection on this territory. Previous experience while desirable is not essential but applicants should have a sound pharmaceutical background. The position is a pensionable one. Write in full confidence to Box C 6343.

THE BRITISH DRUG HOUSES, LTD., require a woman pharmacist in their dispensary. The position would be suitable for a young graduate or a recently qualified pharmacist wishing to obtain practical experience. Apply, in writing, stating age, experience and salary required to Staff Manager (GMG/HGR M. 3155), Graham St., City Rd., N.1. C 6361 YOUNG MAN required to assist in manufacture of medicinal creams. Write, stating age, experience and salary required to Box C 4783.

WELL-KNOWN LONDON COMPANY of manufacturing chemists and distributors require the scrvices of a representative in the Midlands area, centred on Birmingham. Applications are invited from gentlemen with thorough knowledge of retail pharmacy. Pharmaceutical qualification not necessary, Previous representative experience not essential but the man appointed must live on the territory which comprises Leicestershire, Cheshire, Staffordshire, Warwickshire. Remuneration by salary and expenses. Car provided. Give full particulars of past experience and age. Box C 6422.

WRIGHT, LAYMAN & UMNEY, LTD., 46 Southwark Street, London, S.E.1, require energetic and experienced representatives for south-eastern and eastern counties, to call on retail pharmacists. Resicence near areas is necessary and a pharmaceutical background would be an aseet. Maximum age 45. Remuneration is by salary and commission, together with an expenses allowance; a car is provided by the company. A contributory pension scheme is in operation. Apply in writing only to the Managing Director giving full details of experience and commencing rem

quired. C425

TABLET MANAGER required by well-known house in N.W. England. Pharmacist with good experience of manufacture, Research encouraged, Good salary for right man. Pension scheme. 5-day week, Full details in writing to Roy. C 6226 scheme. 5-da Box C 6426.

# WHOLESALE (OVERSEAS)

EVANS MEDICAL SUPPLIES, LTD., have vacancies for Overseas Representatives. A pharmaceutical qualification is essential. Experence of medical detailing an advantage. Reply giving particulars of cducation, qualificat ons and previous experience to Overseas Trade Director, Speke, Liverpool, 19.

# 'UNISEC' from the Single Unit to the Complete Pharmacy WRITE FOR YOUR COPY OF THE STANDARD REFERENCE OF PHARMACY FITTING MYERS of OLD 133/5 & 141/7 OLD STREET, LONDON, E.C.I

# -IMPORTANT-

Box Office numbers are intended exclusively for specific answers to particular advertisements. Price Lists, Trade Circulars, Samples and Printed Matter cannot be forwarded.

## SITUATIONS WANTED

3/- for 18 words (min.) then 2d, per word.

#### RETAIL (HOME)

ANY RESPONSIBLE POSITION, over thirty years good all-round experience wholesale and retail, last ten buyer/manager, control staff. Excellent references. Energetic, unregistered.

**LIVERPOOL.** Unqualified lady, sound city experience, desires post, city area preferred. Box C 4775.

#### LOCUMS SEEKING ENGAGEMENTS

LOCUM, pharmaceutical chemist, age 24, with sound knowledge of ethical practice. Modern business methods, conversant with surgical and photographic sales, seeks bookings from late July to late November only, London Central or West End desired. Write, Robert A. Wilson, c/o Moorhouses, Chemists, 12 Market Hill, Barnsley, Yorks.

#### WHOLESALE

ANY RESPONSIBLE POSITION, over thirty years good all-round experience wholesale and retail, last ten buyer/manager, control staff. Excellent references. Energet.c, unregistered. Excellent references. Apply Box C 4787.

EXECUTIVE/REPRESENTATIVE (32), linguist, six years' experience sales, production, management, leading ethical firms at home and abroad, seeks new appointment, Public school, etc. Single. Reasonable travel no deterrent. Write Box C 4749.

GENTLEMAN, with 27 years' varied experience of the pharmaceutical trade, retail, wholesale and manufacturing, including 15 years sales and factory management with good export experience, seeks executive position with reputable firm. Box C 4797.

table firm. Box C 4797,
GENTLEMAN, 30 years, with good appearance and personality, desires situation as medical representative. Unqualified, but full apprenticeship served (finance preventing me from qualifying). Full experience with selling of drugs, specialities, proprietary medicines, etc. Clean driving licence twelve years. Box C 4756.

#### MARKETING OF PROPRIETARY HOUSEHOLD PRODUCTS

SALES EXECUTIVE has with outstanding SALES EXECUTIVE has with outstanding success organised the launching, marketing and actual selling of several proprietary household products which are now well established and distributed everywhere. Experienced in all aspects such as planning, development, pricing, appointment and control of sales force, advertising, special promotion schemes, office administration, distribution arrangements abroad, etc. Has personal countrywide connections chemist, hardware, and grocery, wholesale, multiple and retail. Age 39. Seeks appointment giving fullest scope for his abilities and experience, Box C 4780.

REPRESENTATIVE, well-established connection with wholesale and retail chemists, etc., Warwickshire, Worcestershire, Leicestershire, South Staffs, offers conscientious service to firm of repute. Agencies considered. Clean licence, own car if required. Box C 4776.

REPRESENTATIVE (London), 25 years' experience wholesale, retail and stores, well known to the trade. References of the highest integrity, Moderate salary. Box C 4798.

#### **AGENCIES**

17/6 for 36 words (min.) then 4d, per word. Box 2/-

AGENT REQUIRED to cover the British Isles, to carry the new "Nylo Puff" (Nylon powder puff). Write Nylo Puff, Ltd., 91a High Street, Camberley, Surrey.

#### **4 MILLION NEW CUSTOMERS** IN DENMARK!

Manufacturing chemists established Copenhagen, marketing international tonet and pharmaceutical prepara-tions, offer their services to British fi.ms interested in Danish market. Prease write Box C 6368.

AGENT REQUIRED to carry good quality Good commission, Existing connections an advantage but not essential, Area Lancashire and part Cheshire, Existing accounts handed over, Some other areas also vacant, Write Box C 4777,

Box C 4777.

AGENTS REQUIRED with first-class connections calling on chemists to carry Spec-Grips. Generous commission and support given to right men. Apply stating area covered to Eagle Grip Products, Ltd., 273 Walworth Rd., London, S.E.17.

C 6428

ALPINE SUNGLASSES have the following areas available for well-introduced agents requiring exclusive models for retail chemists, opticians and stores: Eastern Counties, Warwicks, Worcs, Staffs, Derbys, Leics, and South Wales. 10 per cent. commission. Deliveries by return. Write in confidence to 22 Wardour St., London, W.I.

TARCOLENE. Agents wanted to Self this London, W.I. TARCOLENE.

London, W.I.

TARCOLENE, Agents wanted to sell this amazing hand-cleansing paste and general domestic cleaner, under money-back guarantee (originated over 40 years age by R. S. Clare & Co., Ltd., Liverpool, Manufacturing Chemists, established in 1748), but until now only sold in bulk to works, etc.), Removes tar, fuel oil, beach dirt, etc. Ideal line for chemists in seaside towns, Send today for sample, details of generous commission and agency terms to the above company.

C 6403

# **AGENCIES WANTED**

8/6 for 36 words (min.) then 3d, per word. Box 2/-

two well-known manufacturers in Northern Ireland and the Isle of Man seeks one additional house. Only well-known lines considered. Box C 4782.

# WANTED

17/6 for 36 words (min.) then 4d. per word. Box 2/-

4-5 TONS potassium cyanide 97/99 per cent. powder, I.C.I. manufacture; rapeseed oil, recovered or otherwise; blanc fixe; talcum powder; paradichlorbenzene fine white crystals; boric tar oil; American anatase and rutile titanium dioxide 98/100 per cent. Box C 6430. ALL KINDS OF BOTTLES, JARS, SCREW CAPS, cartons, packaging materials and manufacturers' stocks of all kinds bought at fair prices for spot cash. We are buyers of merchandise of EVERY DESCRIPTION. Clearance Stocks, Discontinued lines, Surplus and Redundant Stocks. Should you have anything for disposal, please send us samples and particulars. Reliance Trading Co., 13 New College Parade, Finchley Road, N.W.3. C 153

OLD DRUG JARS, carboys and coloured syrup bottles. Any quantity. Good prices paid. We pay cash and collect any part of Great Britain. Write or phone, C. & J. Goodall, Ltd., 5 Hoveden Road, London, N.W.2. Gladstone 7579. C 6276 WANTED: Surplus or redundant merchandise, clearance goods of any description or discontinued lines. Cash immediately, no delay. Our representative will be pleased to call or, alternatively, please send samples with particulars, quantity and price, Lawrence Edwards & Co., Ltd., 6-7 Wellington Close, Ledbury Rd., London, W.11. Telephone Bayswater 4020. C 140

# **BUSINESS OPPORTUNITIES**

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FIRST AID IN INDUSTRY. Wholesale distributors of first aid supplies to industrial concerns are offered effective sales help and good advertising with two well-established lines of merit needful to every first aid box. Full particulars to and from Box C 6394. MANUFACTURING CHEMISTS invite inquiries for the manufacture, packing, etc., of private formulæ preparations, liquids, powders, tablets. Dispatch facilities available with own printing department. Frank Macowal & Yanatas, Ltd., Willshaw St., London, S.E.14, Tel.; Tideway 3846-8, C 122

#### MISCELLANEOUS SALES

17/6 for 36 words (min.) then 4d. per word. Box 2/-

150 PURE ALUMINIUM trays 24 in, x 12 in, x 7 in, Hammer grinding mill, 12 h.p. motor, 5 cwt. platform scales, Inquiries to Progressive Chemicals, Ltd., 1a Asmara Road, N.W.2. Ham, 9701.

12 TONS white paraffin was 150/155°, prompt, ex store London, Best offers, Box C 6392.

CARMINE PURE, 7 lb, surplus stock, 55s. per lb., sample on request, Rouse Bros, (London), Ltd., 61 Charlotte St., W.1. C 6429.

COMPLETE TRAY DRIER comprising insulated galvanised oven 9' 9" x 6' 9" x 5' 9"; electric heater for 400/3/50 A.C. supply, rating 28 kw; built-in air circulating fan with 5 h.p. motor; 2 trolleys, each with 21 aluminium trays 4' 3" x 3' 3" x 1"; control panel fitted 2 dial-type thermometers, pushbutton starters and synchronous process timer. £600. Box C 4773.

FOR SALE. Three single-punch Lehmann tablet machines, Good condition, Recently overhaulted. Full details on application. Apply Box

hattled. Full details on application. Apply Box

C 4784.

MODERN CHEMIST SHOP fittings, drug ranges, wallcases and frameless sliding doors, display counters and showcases; all styles of window fittings and display stands. D. Mathews & Son, Ltd., Complete Chemist Shop Fitters and Shop Front Builders, 14-16 Manchester St., Liverpool.

STANDARD SACCHARIN TABLETS in packets of 100, aspirin tablets, 25's, 50's and 100's, and bicarbonate of soda in 4-oz, drums. Inquiries invited. Name and address printed no extra charge on orders of 1 dozen to 100 gross, Prices and samples on application, Tell Products, Ltd., Welbeck Works, 93 Cobbold Road. London, N.W.10. Tel.: Willesden 6873. C 149

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TO LET. 379 Edgware Road. Shop, 3 self-contained flats above, Completely vacant. Shop rental £300 per annum exclusive. No premium. 1 Bartholomew Buildings, E.C.l. Cle. 2756. Cle. 2750. C 4793

57/23

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CITRATES

EPHEDRINE & SALTS

ESERINE & SALTS

HYOSCINE HYDROBROMIDE

**IODIDES** 

**ISONIAZID** 

**ISOPRENALINE** 

**KHELLIN** 

LITHIUM SALTS

P.A.S.

PODOPHYLLIN RESIN

**SALICYLATES** 

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STRYCHNINE & SALTS

THEOBROMINE & SALTS

THEOPHYLLINE & SALTS

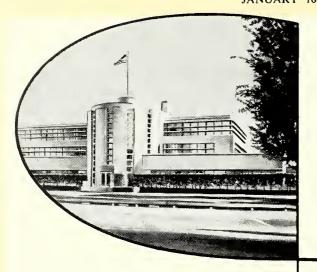
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'Dramamine' is now being introduced to doctors in Great Britain through individual calls of experienced Searle representatives and through an extensive direct mailing campaign—both being backed by the distribution of professional samples. 'Dramamine' has been clinically established as one of the most valuable agents yet discovered for the prophylaxis and treatment of all forms of motion sickness.

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Published reports also support the use of 'Dramamine' in the symptomatic control of nausea and vomiting associated with pregnancy, narcotisation and electro-convulsive therapy; in Ménière's syndrome, vertigo, irradiation sickness, post-fenestration syndrome, labyrinthitis and other forms of vestibular imbalance. Side effects are minimal. Administration can be continued, orally or rectally, for long periods if required. 'Dramamine' tablets are supplied in bottles of 12, 36, and 1,000, and in cartons of 100, each tablet containing 50 mg. Obtainable from your wholesaler.